

# **CallPilot**

Installation and Configuration  
for Succession Communication Server for Enterprise 1000

Product release 1.07

Standard 1.0

June 2001

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# **CallPilot**

## **Installation and Configuration for Succession Communication Server for Enterprise 1000**

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# Chapter 1

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## CallPilot and Succession Communication Server for Enterprise 1000 description

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# Overview

## Introduction

The 201i server is a flexible voice and multimedia messaging server designed to integrate with Nortel Networks PBX products.

Succession Communication Server for Enterprise 1000 is an IP PBX that provides a single solution for telephony and data capabilities over an IP network. This system provides a full suite of industry-leading voice features and uses global software.

This chapter describes how these systems are integrated to provide voice messaging capability over your Ethernet IP network.

## CallPilot server

### Integration with the Succession Communication Server for Enterprise 1000 system

The 201i server occupies two slots of the Succession CSE 1000 system. When the server is installed in the Media Gateway or Media Gateway Expansion component of the Succession CSE 1000 system, the 201i server's connectors attach to the backplane, which provides power and communication links.

### Server power

The server powers up automatically when it is locked into position against the backplane. Powering up the server does not affect operation of the Succession CSE 1000 system.

### Maintenance and diagnostics

Server maintenance and diagnostics are performed remotely through an administration client installed on a PC. Server maintenance and diagnostics are also provided at the server (LEDs, HEX display, and so on), or using system utilities and Windows NT. These are discussed in *Part 5: 201i Server Maintenance and Diagnostics* (NTP 555-7101-119), Standard 1.0, October 2000 in the *CallPilot 201i Installation and Configuration* binder.

## Succession Communication Server for Enterprise 1000

The Succession CSE 1000 system consists of the following major components:

- Call Server
- Media Gateway
- Media Gateway Expansion

**Call Server**

The Call Server provides telephony services and call processing.

It supports up to four Media Gateways and four Media Gateway Expansions when the Small System Controller (SSC) card inside the unit is fully populated with two dual-port 100BaseT daughterboards.

**Media Gateway and Media Gateway Expansion**

The Media Gateway and Media Gateway Expansion provide the interface for analog or digital trunks, IP phonesets (i2004), analog phonesets (including conventional fax machines and modems), and applications such as CallPilot.

The Media Gateway provides three slots, and the Media Gateway Expansion provides four slots. These slots support cards such as analog line cards, trunk cards, and application cards. The CallPilot 201i server is an application card that occupies two consecutive slots.

**Note:** For a list of the cards that are supported by the Succession CSE 1000 system, refer to the *Succession Communication Server for Enterprise 1000 Planning and Installation Guide* (NTP 553-3023-210).

**CallPilot software**

CallPilot interoperation with the Succession CSE 1000 system requires CallPilot server software version 1.07.09.06 and Service Update 4 (SU4) or later. Software is pre-installed at the factory.

The CallPilot administration client software is used to monitor and maintain the CallPilot server. The administration client software must be installed on a PC that has LAN connectivity to the CallPilot server.

**Succession Communication Server for Enterprise 1000 software**

The Succession CSE 1000 system requires Succession CSE Release 01.00 (or later) software.

Media Gateways are centrally configured from the Call Server to provide a single point of management. Configuration required for correct CallPilot operation is, therefore, configured on the Call Server.

The Succession CSE 1000 system is configured, monitored, and controlled by using the Optivity Telephony Manager Release 1.1 (or later) software. Optivity Telephony Manager is an integrated suite of system management tools that operates on a platform that is compatible with a standard IBM PC.

Optivity Telephony Manager can coreside on the same PC with the CallPilot administration client software.

## Related documentation

### Introduction

This section identifies the documentation that you may need when installing and configuring your CallPilot server to operate with the Succession CSE 1000 system.

### CallPilot documentation

All CallPilot technical documents (except the *Documentation Addendum* and the *CallPilot Troubleshooting Reference*) are stored on the CallPilot Documentation CD-ROM (NTRG19AE), which you receive with your system. You can search the entire suite of documentation online, or you can print part or all of a guide. All documents are the Standard 1.0 release unless specified otherwise.

#### Documentation Addendum

The *CallPilot Documentation Addendum* is a supplement to the CallPilot 1.07 documentation suite. It includes updated procedures and documentation errata, and is updated and released on a regular basis.

Ensure that you have the latest version of the *Documentation Addendum*. You can obtain the latest version from the Nortel Networks Partner Information Center (PIC) at <http://my.nortelnetworks.com>.

**Note:** This site was formerly known as the Partner Business Center (PBC).

IF you	THEN
do not have a PIC account	click Register to request an account.  <b>Note:</b> It can take up to 72 hours to process your account request.
were previously registered with the PBC	log on with your PBC user ID and password.

To locate the *CallPilot Documentation Addendum*, navigate through this path: Products, Services and Solutions → Product Documentation → CallPilot → CallPilot → Product Reference → CallPilot Product Bulletins - Other.

#### Planning and Engineering Guide

Use the *Planning and Engineering Guide* (Standard 2.0, November 2000) before you install CallPilot to help plan your system.

## **Installation and configuration guides**

In addition to this guide, the following guides describe how to install CallPilot server hardware and software and the Desktop Messaging software:

### **Document titles**

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*201i Installation and Configuration Guide*—a binder containing the following documents:

- *Part 1: Installation Flowchart and Worksheets* (Standard 2.0, November 2000)
- *Part 2: 201i Server Hardware Installation* (Standard 1.0, October 2000)
- *Part 3: Meridian 1 Switch Setup and CallPilot Server Configuration* (Standard 2.0, November 2000)
- *Part 4: Client Software Installation Guide* (Standard 1.0, May 2000)
- *Part 5: 201i Server Maintenance and Diagnostics* (Standard 1.0, October 2000)

*Desktop Messaging Software Installation and Maintenance Guide*

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## **Administration guides**

The following guides provide specialized information to help you configure CallPilot, administer and maintain it, and use its features.

### **Document titles**

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*Getting Started Quick Reference Card*

*Administrator's Guide*

*Reporter Guide*

*Application Builder Guide*

*Monitoring and Security for the Administrator Guide*

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## **Networking guides**

The following guides describe how to plan, install, set up, and troubleshoot the CallPilot networking services.

### **Document titles**

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*Networking Planning Guide*

*AMIS Networking Implementation and Administration Guide*

*Integrated AMIS Networking Implementation and Administration Guide*

*NMS Implementation and Administration Guide*

*Enterprise Networking Implementation and Administration Guide*

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**Document titles**

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*VPIM Implementation and Administration Guide*

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**End user guides**

The following guides are intended for end users of CallPilot, such as phoneset users and Desktop Messaging users.

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**Document titles**

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*Multimedia Messaging User Guide*

*Speech Activated Messaging User Guide*

*Desktop Messaging Quick Reference Guide*

*Desktop Messaging Quick Reference Card*

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**Troubleshooting**

The *CallPilot Troubleshooting Reference* provides step-by-step troubleshooting procedures for CallPilot. This document is available from the Nortel Networks Partner Information Center (PIC) at <http://my.nortelnetworks.com>.

To locate this document, navigate through this path: Products, Services and Solutions → Product Documentation → CallPilot → CallPilot → Distributor Technical Reference → CallPilot Troubleshooting Guide.

**Using the online Help, guides, and tutorials**

CallPilot contains the following online sources of information:

- Online Help provides brief answers to the questions “What’s this?” and “How do I...?”
- Online guides provide detailed conceptual information, as well as information on how to perform detailed tasks.
- Online tutorials provide a complete product overview, as well as specific information on how to use Application Builder.

You can access all information using either the Help menu or Help buttons.

**Contacting Nortel Networks**

If you have comments or suggestions for improving CallPilot and its documentation, contact Nortel Networks at the following web site address:

[http://www.nortelnetworks.com/callpilot\\_feedback](http://www.nortelnetworks.com/callpilot_feedback)

## Succession Communication Server for Enterprise 1000 documentation

You may need to refer to the following Succession CSE 1000 technical documents. They are stored on the Customer Documentation Library CD-ROM (NTLH80BA), which is provided with your system.

You can search the entire suite of documentation online, or you can print part or all of a guide.

- *Succession Communication Server for Enterprise 1000 Planning and Installation Guide* (NTP 553-3023-210)  
**Note:** This guide is also provided in printed format with your Succession CSE 1000 system.
- *Succession Communication Server for Enterprise 1000 Input/Output X21 Administration* (NTP 553-3023-311)
- *Succession Communication Server for Enterprise 1000 Input/Output X21 Maintenance* (NTP 553-3023-511)

## Contacting technical support

Contact your distributor's technical support organization to get help with troubleshooting your system.





## **Section A: About the CallPilot 201i server**

### **In this section**

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# 201i server

## Introduction

This section describes the 201i server's

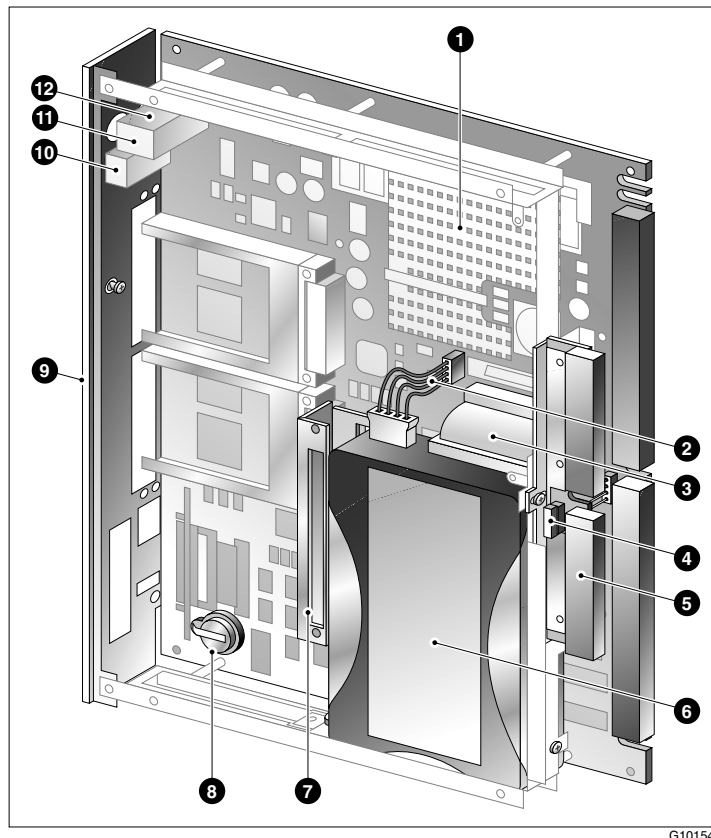
- motherboard
- faceplate
- environmental specifications

## Primary components

The 201i server's motherboard houses the interfaces needed to communicate with the Succession CSE 1000 system, and to facilitate data communications on Ethernet networks.

Two Ethernet controllers on the 201i server's motherboard provide Ethernet capability. These controllers provide the network interfaces for both the embedded LAN (ELAN) and customer LAN (CLAN). The connections to the ELAN and CLAN are established by using the multi I/O cable described on page 23.

The following diagram identifies the 201i server components:



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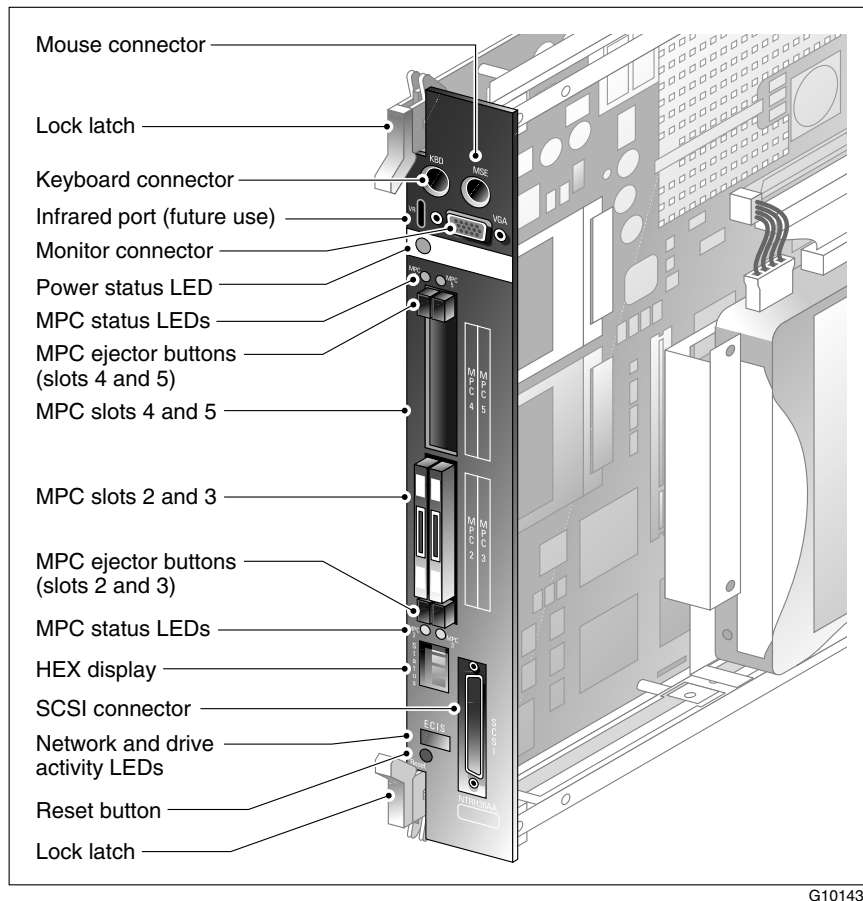
**Legend**

<b>Item</b>	<b>Description</b>
1	Heat sink
2	Hard drive power cable
3	Hard drive data cable
4	Secondary backplane connector pin
5	Secondary backplane connector This connector connects the 201i server to the second slot. In the future, it will provide increased channel capability.
6	3.5" IDE hard drive
7	Hard drive mounting bracket
8	Software feature key
9	Faceplate
10	Monitor connector
11	Mouse connector
12	Keyboard connector

---

## Faceplate

The following diagram shows the 201i server's faceplate. The faceplate provides LEDs, MPC card slots, and connectors for peripheral devices:



The following table describes each faceplate feature:

Faceplate feature	Description
Mouse connector	The mouse connector is a standard PS/2 connector and is hot-pluggable.
Lock latches	Lock latches at the top and bottom of the faceplate secure the server to the backplane of the Media Gateway or Media Gateway Expansion.
Keyboard connector	The keyboard connector is a standard PS/2 connector and is hot-pluggable.
Infrared port	For future use.
Monitor connector	The monitor connector is a standard, high-density 15-pin female connector.

Faceplate feature	Description
Power status LED	<p>The LED indicates two server states:</p> <ul style="list-style-type: none"> <li>■ the completion of self-test diagnostics</li> <li>■ when it is safe to remove the server from the Media Gateway or Media Gateway Expansion</li> </ul>
MPC card status LEDs	<p>There is one LED for each MPC card slot. The following describes each LED status:</p> <ul style="list-style-type: none"> <li>■ Off: The MPC card is not receiving power. It is safe to remove the card.</li> <li>■ On: The MPC card is in use. It is <i>not</i> safe to remove the card.</li> <li>■ Off, then on: The MPC card has been recognized by the 201i server software and has been powered up.</li> <li>■ On, then off: The MPC card has been successfully powered down. It is safe to remove the card.</li> </ul>
MPC card ejector buttons	<p>There is one ejector button for each MPC card slot. When you insert the card, the associated ejector button pops out.</p> <p>Press the button to eject the card from its slot.</p>
MPC card slots	<p>MPC cards house DSP units and are used for multimedia telephony processing. Up to four MPC cards can be installed on the 201i server. The 201i is shipped with two MPC-8 cards installed in slots 2 and 3. Slots 4 and 5 are for future use. All slots are faceplate-accessible.</p> <p>The MPC cards are numbered as follows:</p> <ul style="list-style-type: none"> <li>■ top row of slots: MPC cards 4 and 5</li> <li>■ bottom row of slots: MPC cards 2 and 3</li> </ul> <p><b>Note:</b> MPC 1 is embedded on the motherboard.</p>
Hexadecimal (HEX) display	<p>The four-digit LED-based display provides feedback on the current status of the server, including fault conditions.</p>
SCSI connector	<p>This connector connects SCSI devices to the 201i server (for example, a CD-ROM or tape drive).</p> <p>Press the button latches to lock or unlock a cable from the connector.</p>

Faceplate feature	Description
Network and drive activity LEDs (labeled as ECIS)	<p>The E and C LEDs indicate the presence of network activity for both the ELAN and CLAN interfaces (respectively). When they are lit, they indicate that the interfaces are properly attached to their respective hubs. When the LEDs are blinking, there is network activity.</p> <p>When the I and S LEDs are lit, it means that the IDE hard drive and SCSI device are being accessed.</p>
Reset button	<p>The reset button allows you to manually restart the 201i server without removing it from the Media Gateway or Media Gateway Expansion.</p> <p><b>ATTENTION</b></p> <p>Before you press the reset button, you must shut down Windows NT. Press the reset button while Windows NT is running <i>only</i> when you cannot shut down Windows NT normally.</p>

## Environmental specifications

### Temperatures

Recommended temperature	15°C (59°F) to 30°C (86°F)
Absolute temperature	10°C (50°F) to 45°C (113°F)
Long-term storage temperature	–20°C (–4°F) to 60°C (140°F)
Short-term storage temperature	–40°C (–40°F) to 70°C (158°F) (less than 72 hours)
Change rate temperature	Less than 1°C (34°F) per 3 minutes

### Relative humidity

Recommended relative humidity	20% to 55% RH (noncondensing)
Absolute relative humidity	20% to 80% RH (noncondensing)
Long-term storage relative humidity	5% to 95% RH (at –40°C to 70°C respectively) (noncondensing)

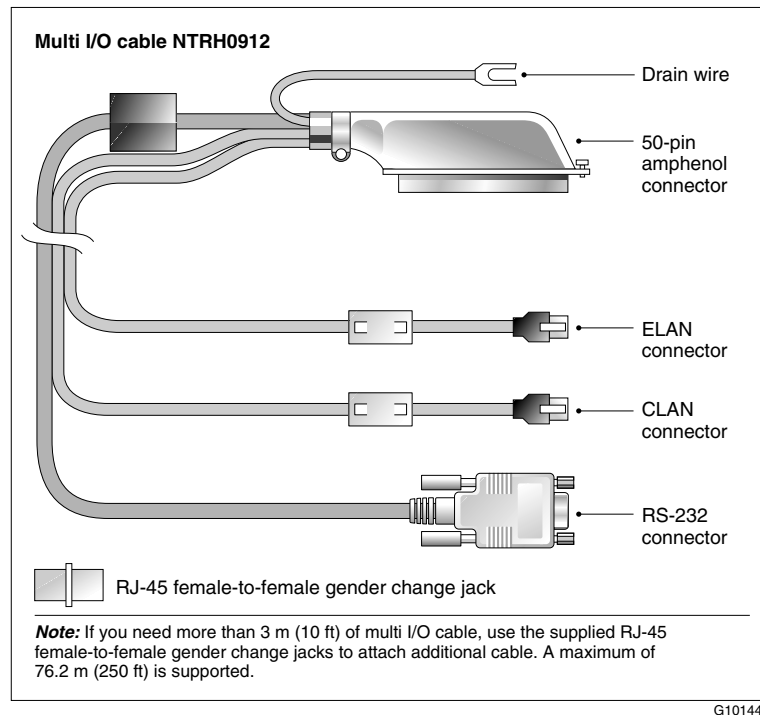
# Network connectivity

## Introduction

This section describes how the 201i server connects to the network. For a description of how the 201i server is integrated with the Succession CSE 1000 system in your network, see Section B: “CallPilot and Succession Communication Server for Enterprise 1000 integration” on page 29. For important considerations about the ELAN, see “About the ELAN” on page 32.

## Multi I/O cable description

The multi I/O cable provided with the 201i server contains four connectors, and is approximately 3 m (10 ft) in length. See the following diagram:



The following table identifies the purpose of each connector on the NTRH0912 multi I/O cable:

Connector type	Purpose
50-pin amphenol	This connector establishes the connection between the Media Gateway or Media Gateway Expansion's backplane, ELAN and CLAN hubs, and modem.

Connector type	Purpose
10Base-T (RJ-45)	ELAN interface For more details, see “ELAN connector” below.
10- or 100Base-T (RJ-45)	CLAN interface For more details, see “CLAN connector” below.
RS-232 COM 1 (male DB-9)	Remote Access Service (RAS) modem For more details, see “RS-232 connector” below.

**Note:** Labels on the RJ-45 cables distinguish the CLAN and ELAN connectors.

### ELAN connector

The ELAN connector on the multi I/O cable provides a 10 Mbit/s Ethernet connection between the 201i server and the Succession CSE 1000 system. This connection allows the exchange of call control information between the 201i server and the Succession CSE 1000 system.

The ELAN connector also facilitates network-based management by allowing for local onsite administration of CallPilot servers and the Succession CSE 1000 system using ELAN-based administration client PCs.

### ATTENTION

When internetworked with the Succession CSE 1000 system, do not schedule high-traffic operations such as operational measurements, downloads, or network-based backups during high call traffic periods.

### CLAN connector

The CLAN connector on the multi I/O cable provides a 10 or 100 Mbit/s Ethernet

- connection to an existing network for connectivity to users' desktop computers
- path for LAN-based server administration

### RS-232 connector

The RS-232 connector on the multi I/O cable provides the connection to an external high-speed modem. The modem allows administrators and technical support personnel to administer the 201i server from a remote location.



# Peripheral connectivity

## Introduction

Peripheral equipment is attached to the 201i server on the server faceplate.

## Faceplate connections

### ATTENTION

---

Connections made to the faceplate (with the exceptions noted below) are temporary because you must remove the Media Gateway or Media Gateway Expansion cover to make these connections. The system does not meet specifications for radiated EMI if you remove the cover.

The following peripheral devices connect to the faceplate:

- monitor (SVGA)
- keyboard
- mouse
- MPC card (permanent connection)
- SCSI cable (permanent connection)

### Monitor, keyboard, and mouse

You need the monitor, keyboard, and mouse to run the Configuration Wizard or to install the operating system on the 201i server as part of a recovery process.

All three peripheral components are hot-pluggable.

### MPC-8 card

The MPC-8 card looks like a Type II PC card, and supports the multimedia telephony services on the 201i server. Four specially designed card slots are available for the MPC-8 cards, but only two of them are supported in this release. All slots are located on the 201i server faceplate.

### SCSI connections

The SCSI connection is the only permanent faceplate connection. A low-profile right-angle connector on the SCSI cable allows the cable to be attached to the 201i server when the Media Gateway or Media Gateway Expansion cover is installed.

When the 201i server is installed in the Media Gateway or Media Gateway Expansion, the SCSI cable is routed from the 201i server faceplate out of the Media Gateway or Media Gateway Expansion through a cable opening.

**ATTENTION**

Due to a Windows NT restriction, you must connect external SCSI devices before the 201i server is started. You cannot disconnect external SCSI devices while the 201i server is powered on.

If a SCSI device is not connected before the 201i server is started, or a device is disconnected after the 201i server is started, you must reconnect the device and restart the system.

**Supported peripheral devices**

The following table describes the supported peripheral devices:

Device	Description
CD-ROM (NTRH9037)	<p>The external CD-ROM drive is used to install and upgrade the server. The drive connects to the server with a SCSI cable that connects to the SCSI connector on the 201i server's faceplate.</p> <p>Since the CD-ROM drive is an external device, it requires an AC power source.</p> <p>Set the SCSI ID for the CD-ROM drive to 3. If you are connecting more than one SCSI device to the server (such as a tape drive), you must daisy chain those devices.</p> <p><b>Note:</b> The CD-ROM drive is not hot-pluggable. You must power off the server to connect or disconnect the drive.</p>
Tape drive (NTRH9038)	<p>The external SCSI tape drive is used to back up and restore data. The device connects to the server by a SCSI cable that connects to the SCSI connector on the 201i server's faceplate.</p> <p>Since the tape drive is an external device, it requires an AC power source.</p> <p>Set the SCSI ID for the tape drive to 5. If you are connecting more than one SCSI device to the server (such as a CD-ROM drive), you must daisy chain those devices.</p> <p><b>Note:</b> The tape drive is not hot-pluggable. You must power off the server to connect or disconnect the drive.</p>
Modem (NTRH9016)	<p>The external high-speed modem provides remote access to the 201i server. The modem connects to the RS-232 COM1 connector on the multi I/O cable.</p> <p>Since the modem is an external device, it requires an AC power source.</p>

Device	Description
10/100Base-T Ethernet hub (NTRH9075)	<p>The 10/100Base-T Ethernet hub provides the ELAN connection between the 201i server and the Succession CSE 1000 system.</p> <p>Since the hub is an external device, it requires an AC power source.</p>
Monitor, keyboard, and mouse	<ul style="list-style-type: none"><li>■ 14" monitor: NTRH9011</li></ul> <p>Since the monitor is an external device, it requires an AC power source.</p> <ul style="list-style-type: none"><li>■ Keyboard: NTRH9013</li><li>■ Mouse: NTRH9014</li></ul> <p><b>Note:</b> The mouse connector on the 201i faceplate is a PS/2 connector. If you plan to use a USB mouse with USB-to-PS/2 converter, you must also use the Nortel Networks-supplied 4-inch PS/2 extension cable (A0855616). Without the extension cable, the monitor connector partially blocks the mouse connector.</p>



## **Section B: CallPilot and Succession Communication Server for Enterprise 1000 integration**

### **In this section**

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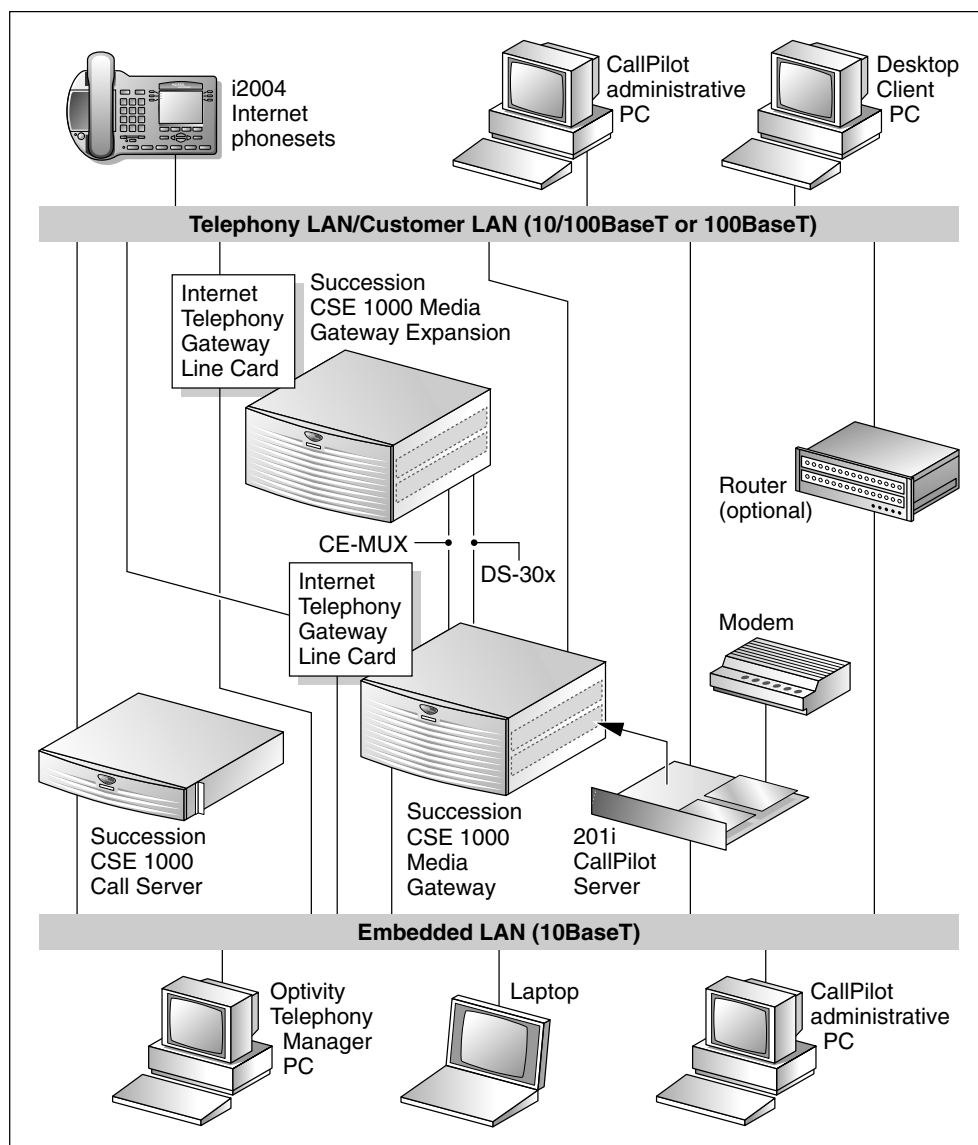
# Network setup

## Introduction

This section shows how CallPilot and the Succession CSE 1000 system are integrated into your network. It also describes what is required in the network for correct CallPilot operation.

## Sample network diagram

The following diagram shows an example of how the 201i server can be integrated with the Succession CSE 1000 system in your network:



G101614

## Succession Communication Server for Enterprise 1000 network setup

In the previous illustration, the telephony LAN (TLAN) provides IP connectivity between the Succession CSE 1000 system and the i2004 Internet phonesets. The connection between the Call Server and Media Gateway can be point-to-point, or it can be through the LAN, if the system is installed in a distributed data network.

For information about the Succession CSE 1000 system and i2004 Internet phoneset bandwidth and network requirements, refer to the *Succession Communication Server for Enterprise 1000 Planning and Installation* Guide (NTP 553-3023-210).

For a description of each Succession CSE 1000 system component, see page 34.

## CallPilot network setup

The 201i server supports the following network protocols:

- **CLAN: 10- or 100Base-T Ethernet**  
A built-in Ethernet controller on the 201i server's motherboard provides Ethernet CLAN capability. The CLAN provides data connectivity between Desktop and Web Messaging clients, administrative PCs, and the CallPilot server.
- **ELAN: 10Base-T Ethernet**  
A built-in Ethernet controller on the 201i server's motherboard provides Ethernet ELAN capability. For information about the ELAN's purpose and requirements, see "About the ELAN" on page 32.

You establish the CLAN and ELAN connections by using the 201i server's multi I/O cable that is described on page 23.

### Network requirements

Appropriate networking equipment must be available for both the CLAN and ELAN.

The CLAN and ELAN must be properly configured for correct CallPilot operation. To ensure correct configuration, Nortel Networks recommends that you consult a network specialist.

### ATTENTION

---

For important considerations about using the ELAN in your network, see "About the ELAN" on page 32.

## About the ELAN

The ELAN is a segregated network that carries traffic only between CallPilot servers, the Succession CSE 1000 system, and a limited number of connected administration client PCs.

The ELAN primarily provides data connectivity for AML call control messaging between the Succession CSE 1000 system and the CallPilot server.

### System administration and the ELAN

In addition to its primary purpose of carrying call control information, the ELAN facilitates network-based management by allowing for local onsite administration of CallPilot servers and the Succession CSE 1000 system using ELAN-based administration client PCs.

**Note:** CallPilot administrative PCs are typically located on the CLAN, if a CLAN is available.



#### CAUTION

---

##### Risk of reduced system performance

Since the ELAN carries critical real-time traffic between the CallPilot server and the Succession CSE 1000 system, bandwidth-intensive OA&M activities on the ELAN are prohibited while CallPilot call processing is in progress. These activities include remote control, large file transfers, backup and restore operations, printing, and other traffic-intensive tasks. Failure to adhere to this guideline adversely affects the call processing abilities of the CallPilot server.

### Desktop client PCs and the ELAN

#### ATTENTION

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Desktop client PCs should not use the ELAN.

The ELAN cannot support high volumes or intensive IP traffic originating within the local ELAN or from external interconnected networks.



## System performance and the ELAN



### CAUTION

---

#### **Risk of reduced system performance**

Based on the size and required administrative operations of an external network, you may want to internetwork the ELAN using routers, bridges, or switches.

Direct connection of the ELAN to external networks (such as the CLAN), or improper router, bridge, or switch device selection or configuration can adversely affect the call processing abilities of the CallPilot server.

As a result, Nortel Networks does not recommend router and switching technologies applied to the ELAN. If you require such connections, contact your Nortel Networks technical support representative.

# Succession Communication Server for Enterprise 1000 hardware components

## Introduction

The Succession CSE 1000 system is an IP PBX that provides a single solution for telephony and data capabilities over an IP network. This system provides a full suite of industry-leading voice features and uses global software.

The Succession CSE 1000 system consists of the following major components:

- Call Server
- Media Gateway
- Media Gateway Expansion

## Call Server

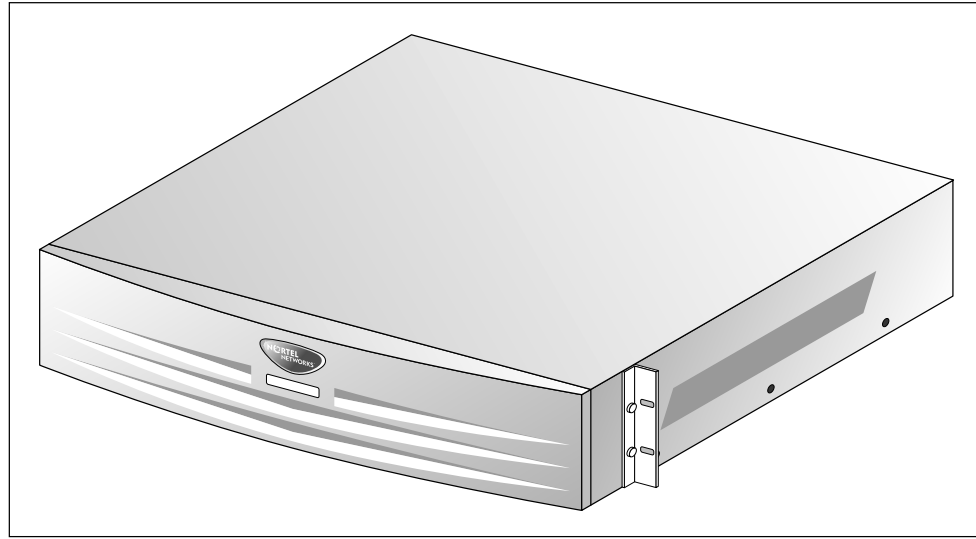
The Call Server provides telephony services and call processing.

It supports up to four Media Gateways and four Media Gateway Expansions when the Small System Controller (SSC) card inside the unit is fully populated with two dual-port 100BaseT daughterboards.

The following connectors are located on the back of the Call Server:

- four 100Base-T connectors for connecting Media Gateways using one of the following:
  - for connections over the LAN: customer-supplied standard 100Base-T CAT5 Ethernet cables
  - for point-to-point connections: Nortel Networks-supplied crossover Ethernet cables
- one 10Base-T Ethernet connector that
  - provides the ELAN interface to management software applications such as Optivity Telephony Manager and CallPilot
  - accepts an industry-standard Medium Access Unit (MAU)
- one SDI connector that interfaces with three TTY ports using a three-port SDI cable
- one AC power cord connector and On/Off switch

The following diagram shows the Call Server:



G101623

## Media Gateway and Media Gateway Expansion

The Media Gateway and Media Gateway Expansion provide the interface for analog or digital trunks, i2004 Internet phonesets, analog phonesets, and applications such as CallPilot.

The Media Gateway provides three slots, and the Media Gateway Expansion provides four slots. These slots support cards such as analog line cards, trunk cards, and application cards. The CallPilot 201i server is an application card that occupies two consecutive slots.

**Note:** For a list of the cards that are supported by the Succession CSE 1000 system, refer to the *Succession Communication Server for Enterprise 1000 Planning and Installation Guide* (NTP 553-3023-210).

A Media Gateway Expansion can be connected to the Media Gateway to increase system capacity.

### Card slots

The 201i server occupies physical and electrical slots. You must install the 201i server in a pair of consecutive slots in the Media Gateway or Media Gateway Expansion.

The following table identifies the Media Gateway and Media Gateway Expansion slots into which you can install the CallPilot 201i server:

<b>Unit</b>	<b>The 201i server can be installed in</b>	<b>Ineligible slots</b>
Media Gateway	Slots 1 and 2	Slot 0 is dedicated to the SSC card.
	Slots 2 and 3	Slot 4 (includes slots 5 and 6) is not used.
Media Gateway Expansion	Slots 7 and 8	Slot 10 is a double-wide slot. The second half of this slot does not have a backplane connector.
	Slots 8 and 9	
	Slots 9 and 10	

For more information about cards and slots, refer to the *Succession Communication Server for Enterprise 1000 Planning and Installation Guide* (NTP 553-3023-210).

**Note:** When you configure the Succession CSE 1000 system, use the logical slot numbers shown in the following tables:

<b>Media Gateway and Media Gateway Expansion 1</b>		<b>Media Gateway and Media Gateway Expansion 2</b>	
<b>Physical slot</b>	<b>Logical slot</b>	<b>Physical slot</b>	<b>Logical slot</b>
Media Gateway		Media Gateway	
1	11	1	21
2	12	2	22
3	13	3	23
4	Not supported	4	Not supported
5	Not supported	5	Not supported
6	Not supported	6	Not supported
Media Gateway Expansion		Media Gateway Expansion	
7	17	7	27
8	18	8	28
9	19	9	29
10	20	10	30

<b>Media Gateway and Media Gateway Expansion 3</b>		<b>Media Gateway and Media Gateway Expansion 4</b>	
<b>Physical slot</b>	<b>Logical slot</b>	<b>Physical slot</b>	<b>Logical slot</b>
Media Gateway		Media Gateway	
1	31	1	41
2	32	2	42
3	33	3	43
4	Not supported	4	Not supported
5	Not supported	5	Not supported
6	Not supported	6	Not supported
Media Gateway Expansion		Media Gateway Expansion	
7	37	7	47
8	38	8	48
9	39	9	49
10	40	10	50

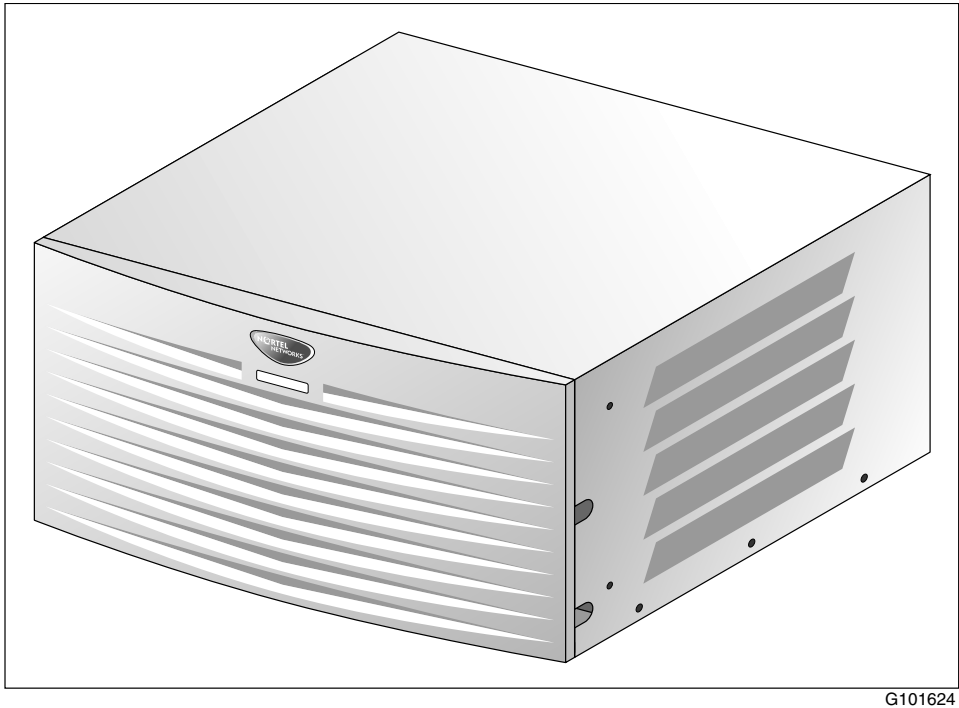
### Back panel connectors

The following table describes the connectors that are located on the back of each Media Gateway and Media Gateway Expansion, and how they relate to CallPilot:

<b>Connector</b>	<b>Media Gateway</b>	<b>Media Gateway Expansion</b>
Four 50-pin amphenol connectors that interface with the cross-connect terminal  The CallPilot 201i server's multi I/O cable must be connected to the connector that is associated with the first slot that the 201i server occupies. This is described in Chapter 4, "Installing and connecting the 201i server."	yes	yes
One auxiliary (AUX) connector	yes	no
One SDI connector	yes	no

Connector	Media Gateway	Media Gateway Expansion
One 10Base-T Ethernet connector that <ul style="list-style-type: none"><li>■ provides the ELAN interface to management software applications such as Optivity Telephony Manager and CallPilot</li><li>■ accepts an industry-standard Medium Access Unit (MAU)</li></ul>	yes	no
DS-30X and CE-MUX connectors for connecting the Media Gateway and Media Gateway Expansions together	yes	yes
Power connector	yes	yes

The following diagram shows the Media Gateway:



G101624

**Note:** Except for the back panel connectors, the Media Gateway Expansion is similar in external appearance to the Media Gateway.

# Software configuration and administration

## Introduction

This section identifies the software requirements for CallPilot and the Succession CSE 1000 system.

## CallPilot software

### Pre-installed software

The following software is installed at the factory before the server ships:

- Windows NT 4.0 Server operating system
- Windows NT Service Pack 5
- SNMP and Remote Access Service (RAS)
- CallPilot 1.07 software
- SQL Anywhere database
- pcANYWHERE32 version 8.0

### Server software

You need CallPilot server software version 1.07.09.06 and Service Update 4 (SU4) to use CallPilot with the Succession CSE 1000 system.

The base server software is provided on the CallPilot 1.07 Server CD-ROM. Service Updates are provided on the CallPilot 1.07 PEP CD-ROM. Additional Service Updates, if they are required, are available from the Nortel Networks Partner Information Center (PIC) at <http://my.nortelnetworks.com>.

To locate the Service Updates, navigate through this path: Products, Services and Solutions → Product Documentation → CallPilot → CallPilot → Tools → CallPilot 1.07 Service Update x (SUx), where x represents the latest service update number.



### CAUTION

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#### Risk of software malfunction

Do not install software that is not provided with CallPilot on the CallPilot server. Software not used by CallPilot is not supported and can cause CallPilot to malfunction.

**CAUTION****Risk of reduced system performance**

Do not activate screen savers on the CallPilot server. Screen savers consume significant CPU resources and, therefore, impact CallPilot's response time.

**Administration client software**

Perform first-time configuration by running the Configuration Wizard on the CallPilot server. To monitor and maintain the CallPilot server, you must install the CallPilot administration client software on a PC that has LAN connectivity to the 201i server.

The administration client software is provided on the CallPilot 1.07 Admin Client CD-ROM. The software is updated each time a Service Update is released. Ensure that you obtain the latest version of the administration client software from the Nortel Networks Partner Information Center (PIC) at <http://my.nortelnetworks.com>.

To locate the updated administration client software, navigate through this path: Products, Services and Solutions → Product Documentation → CallPilot → CallPilot → Tools → CallPilot 1.07 Service Update x (SUx), where x represents the latest service update number.

For instructions on installing and configuring the administration client software, refer to *Part 4: Client Software Installation Guide* (NTP 555-7101-212), Standard 1.0, May 2000 in the *CallPilot 201i Installation and Configuration* binder.

**Succession Communication Server for Enterprise 1000 software**

The Succession CSE 1000 system requires Succession CSE Release 01.00 (or later) software.

The Media Gateways and Media Gateway Expansions are centrally configured from the Call Server. This allows for a single point of management. Configuration required for correct CallPilot operation is, therefore, performed on the Call Server.

**Administration software**

The Succession CSE 1000 system interfaces with Optivity Telephony Manager Release 1.1 (or later). Optivity Telephony Manager is an integrated suite of system management tools. You can use Optivity Telephony Manager to configure, control, and manage your Succession CSE 1000 system. Optivity Telephony Manager operates on a platform that is compatible with a standard IBM PC.

Refer to the Optivity Telephony Manager documentation for information about the Optivity Telephony Manager application, its requirements, and how to install it.



**CallPilot administration client and Optivity Telephony Manager**

The CallPilot 1.07 administration client and Optivity Telephony Manager software can coreside on the same PC.



## Chapter 2

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# Preparing for installation

### In this chapter

Installation checklist	44
Site inspection checklist	48
Unpacking the 201i server	49
CallPilot server hardware checklist	50
CallPilot software media and documentation checklist	51
Inspecting the 201i server	53
Customer-supplied equipment checklist	56
Required tools and materials	57
Succession Communication Server for Enterprise 1000 configuration worksheet	58
CallPilot Configuration Wizard worksheet	60
CallPilot logon access worksheet	62

## Installation checklist

This checklist provides a high-level overview of how to install and configure the CallPilot server. To complete these tasks, you must use the following documents:

- this guide
- *CallPilot 201i Installation and Configuration* binder
- *CallPilot Documentation Addendum*  
**Note:** For instructions on obtaining the latest *CallPilot Documentation Addendum*, see “Documentation Addendum” on page 12.
- *Succession Communication Server for Enterprise 1000 Input/Output X21 Administration* (NTP 553-3023-311)
- *Succession Communication Server for Enterprise 1000 Input/Output X21 Maintenance* (NTP 553-3023-511)

Step	Description	Check
<b>Stage 1: Complete the pre-installation requirements.</b>		
1	Understand your CallPilot server and its requirements.  Refer to Chapter 1, “CallPilot and Succession Communication Server for Enterprise 1000 description,” in this guide.	<input type="checkbox"/>
2	Review and become familiar with the safety guidelines, checklists, and worksheets in this guide.  The information in this guide will help you successfully install your CallPilot server.  <b>ATTENTION</b>  Failure to comply with the safety guidelines described in Chapter 3, “Safety guidelines,” of this guide can result in personal injury or equipment damage.	<input type="checkbox"/>
3	Complete “Site inspection checklist” on page 48.	<input type="checkbox"/>
4	Unpack the server and supplied equipment, software, and documentation.  For instructions, see “Unpacking the 201i server” on page 49.  Complete the following checklists to ensure that you have all the components you ordered: <ul style="list-style-type: none"> <li>■ “CallPilot server hardware checklist” on page 50</li> <li>■ “CallPilot software media and documentation checklist” on page 51</li> </ul>	<input type="checkbox"/>

Step	Description	Check
5	Inspect the server. If you note any damage or missing components, contact your Nortel Networks distributor. For details, see “Inspecting the 201i server” on page 53.	<input type="checkbox"/>
6	Gather the equipment, tools, and materials that you must supply yourself. Complete the following checklists: <ul style="list-style-type: none"> <li>■ “Customer-supplied equipment checklist” on page 56</li> <li>■ “Required tools and materials” on page 57</li> </ul>	<input type="checkbox"/>
7	Prepare for Succession CSE 1000 system and CallPilot server configuration by completing the following worksheets: <ul style="list-style-type: none"> <li>■ “Succession Communication Server for Enterprise 1000 configuration worksheet” on page 58</li> <li>■ “CallPilot Configuration Wizard worksheet” on page 60</li> <li>■ “CallPilot logon access worksheet” on page 62</li> </ul> <p><b>Note:</b> This worksheet captures remote access pool IP address ranges and logon passwords.</p>	<input type="checkbox"/>
<b>Stage 2: Install the server hardware.</b>		
8	Remove the front bezel and inside faceplate from the Media Gateway or Media Gateway Expansion (see page 75).	<input type="checkbox"/>
9	Insert the 201i server into an available pair of slots inside the Media Gateway or Media Gateway Expansion (see page 77).	<input type="checkbox"/>
10	Install the SCSI cable (NTRH3502). This cable connects the external CD-ROM or tape drive to the 201i server. For instructions, see page 79.	<input type="checkbox"/>
11	Install the following items: <ul style="list-style-type: none"> <li>■ multi I/O cable (NTRH0912)</li> <li>■ ferrites on the power cord for the Media Gateway or Media Gateway Expansion</li> </ul>	<input type="checkbox"/>
12	Set the DIP switches on the modem (see page 91).	<input type="checkbox"/>
13	Set the following items: <ul style="list-style-type: none"> <li>■ SCSI IDs and DIP switches on the CD-ROM drive (see page 93)</li> <li>■ SCSI ID on the tape drive (see page 95)</li> <li>■ SCSI device termination on the CD-ROM and tape drives (see page 96)</li> </ul>	<input type="checkbox"/>
14	Install the MPC cards (see page 103).	<input type="checkbox"/>

Step	Description	Check
15	<p>Connect the 201i server and devices as follows:</p> <ul style="list-style-type: none"> <li>■ Connect the monitor, keyboard, and mouse to the 201i server faceplate (see page 105). <input type="checkbox"/></li> <li>■ Connect the CD-ROM and tape drives to the NTRH3502 SCSI cable (see page 107). <input type="checkbox"/></li> <li>■ Connect ELAN and CLAN network hubs to the 201i server's multi I/O cable (see page 109). <input type="checkbox"/></li> </ul> <p><b>Note:</b> If more than 3 m (10 ft) of multi I/O cable is required, use the supplied RJ-45 female-to-female gender change jacks to attach additional cable. Up to 76.2 m (250 ft) of cable length is supported.</p> <ul style="list-style-type: none"> <li>■ Connect the modem to the multi I/O cable (see page 111). <input type="checkbox"/></li> <li>■ Connect the power cords for all devices, and then power up the devices. <input type="checkbox"/></li> </ul>	
16	<p>Complete the installation of the 201i server as follows:</p> <ul style="list-style-type: none"> <li>■ Close the lock latches on the 201i server.</li> <li>■ Boot the 201i server to Windows NT.</li> </ul> <p>See page 114.</p>	<input type="checkbox"/>

### Stage 3: Configure the Succession CSE 1000 system and CallPilot server.

**Note:** For high-level instructions, see Chapter 5, "Configuring and testing the system," in this guide.

17	<p>Configure the Succession Communication Server for Enterprise 1000 system.</p> <p>Use the "Succession Communication Server for Enterprise 1000 configuration worksheet" that you completed in step 7 (see page 45).</p> <p>For configuration instructions, refer to Chapter 3, "Switch programming," in <i>Part 3: Meridian 1 Switch Setup and CallPilot Server Configuration</i> (NTP 555-7101-222), Standard 2.0, November 2000 in the <i>CallPilot 201i Installation and Configuration</i> binder.</p>	<input type="checkbox"/>
18	<p>Run the Configuration Wizard and configure the CallPilot server as if it is installed in an Option 11C switch. Use the "CallPilot Configuration Wizard worksheet" that you completed in step 7 (see page 45).</p> <p>For configuration instructions, refer to Chapter 6, "Configuring the server software," in <i>Part 3: Meridian 1 Switch Setup and CallPilot Server Configuration</i> (NTP 555-7101-222), Standard 2.0, November 2000 in the <i>CallPilot 201i Installation and Configuration</i> binder.</p>	<input type="checkbox"/>

Step	Description	Check
19	<p>Change the Windows NT default passwords on the CallPilot server.</p> <p>Use the “CallPilot logon access worksheet” that you completed in step 7 (see page 45).</p> <p>For instructions, refer to Chapter 7, “Changing the CallPilot server Windows NT default passwords,” in <i>Part 3: Meridian 1 Switch Setup and CallPilot Server Configuration</i> (NTP 555-7101-222), Standard 2.0, November 2000 in the <i>CallPilot 201i Installation and Configuration</i> binder.</p>	<input type="checkbox"/>
20	<p>Configure Remote Access Service on the CallPilot server.</p> <p>Use the “CallPilot logon access worksheet” that you completed in step 7 (see page 45).</p> <p>For instructions, refer to Chapter 8, “Configuring Remote Access Service,” in <i>Part 3: Meridian 1 Switch Setup and CallPilot Server Configuration</i> (NTP 555-7101-222), Standard 2.0, November 2000 in the <i>CallPilot 201i Installation and Configuration</i> binder.</p>	<input type="checkbox"/>
21	<p>Configure pcANYWHERE32 to allow remote access connections by Nortel Networks and administrators who want to administer and monitor the server from a remote location.</p> <p>Use the “CallPilot logon access worksheet” that you completed in step 7 (see page 45).</p> <p>For instructions, refer to Chapter 9, “Preparing the server for remote access with pcANYWHERE32,” in <i>Part 3: Meridian 1 Switch Setup and CallPilot Server Configuration</i> (NTP 555-7101-222), Standard 2.0, November 2000 in the <i>CallPilot 201i Installation and Configuration</i> binder.</p>	<input type="checkbox"/>

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#### Stage 4: Test the CallPilot system.

**Note:** For high-level instructions, a system testing checklist, and references to other documentation for detailed instructions, refer to Chapter 5, “Configuring and testing the system,” in this guide.

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22	Perform a basic sanity check to ensure that all connectivity is in place and working.	<input type="checkbox"/>
23	Ensure that the messaging service and channels work as expected.	<input type="checkbox"/>

---

## Site inspection checklist

Before you perform hardware installation, complete this checklist:

Check	Description
<input type="checkbox"/>	Ensure that the area is clean and clear of any debris.
<input type="checkbox"/>	Ensure that there is adequate space for all equipment.
<input type="checkbox"/>	Ensure that there is a desk, shelf, or table available for the monitor, keyboard, mouse, and modem.
<input type="checkbox"/>	Ensure that there is adequate space for air-flow around the peripheral equipment, for ventilation.
<input type="checkbox"/>	Ensure that there are no heat sources near the peripheral equipment.
<input type="checkbox"/>	Ensure that an analog phone line is available for the modem.
<input type="checkbox"/>	Ensure that the area is isolated from strong electromagnetic fields and electrical noise sources (such as air conditioners, large fans, motors, radio or TV transmitters, or high-frequency security devices).
<input type="checkbox"/>	Ensure that there is a sufficient number of grounded electrical outlets or power bars for all equipment. There should be one outlet for each of the following items: <ul style="list-style-type: none"><li>■ monitor</li><li>■ modem</li><li>■ external CD-ROM drive</li><li>■ external tape drive</li><li>■ ELAN hub</li><li>■ administrative PC and monitor</li><li>■ customer-supplied network equipment (if required)</li></ul>
<input type="checkbox"/>	Ensure that jacks and cables are ready for all required connections.
<input type="checkbox"/>	Obtain the following information for all equipment on both the CLAN and the ELAN: <ul style="list-style-type: none"><li>■ unique computer names</li><li>■ IP addresses</li><li>■ subnet masks</li><li>■ default gateway (CLAN)</li></ul>



# Unpacking the 201i server

## Introduction

This section describes how to unpack the 201i server and peripherals.

## To unpack the 201i server

### ATTENTION

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As you unpack each item, check it off against the packing list, as well as the following checklists:

- “CallPilot server hardware checklist” on page 50
- “CallPilot software media and documentation checklist” on page 51

- 1 Remove the 201i server from the carton and its antistatic bag.
- 2 Place the 201i server on an antistatic surface.
- 3 Carefully open the cartons containing the monitor, keyboard, mouse, modem, and ELAN hub (if supplied), and set the peripherals aside.
- 4 Put all manuals and CD-ROMs in a safe place.
- 5 Save all packing materials and cartons in case you must return any equipment to the carrier.
- 6 Continue with “Inspecting the 201i server” on page 53.

## CallPilot server hardware checklist

The following checklist identifies the hardware that you need to put the CallPilot server into operation in your network. Use this checklist (as well as the packing list provided with your order) to ensure that you have all the components you need.

Check	Description
-------	-------------

- |                          |   |
|--------------------------|---|
| <input type="checkbox"/> | Keycode printed on a label that also lists the purchased features   |
| <input type="checkbox"/> | 201i server with multi I/O cable and EMC kit (ferrites)   |
| <input type="checkbox"/> | MPC-8 card(s) if required to provide the number of channels purchased for CallPilot   |
| <input type="checkbox"/> | SVGA 14" monitor  |
| <input type="checkbox"/> | Keyboard  |
| <input type="checkbox"/> | Mouse   |
|                          | <b>Note:</b> If you are using a USB mouse, ensure that you also have a USB-to-PS/2 converter and a PS/2 extension cable (A0855616). |
| <input type="checkbox"/> | Modem with cables and power cord (for remote access)  |
| <input type="checkbox"/> | Ethernet hub(s), if purchased from Nortel Networks (otherwise, supply your own)   |
| <input type="checkbox"/> | External CD-ROM drive with NTRH3502 SCSI and power cables   |
| <input type="checkbox"/> | External tape drive with SCSI and power cables  |

## CallPilot software media and documentation checklist

The following checklist identifies the software media and documentation that you need to put the CallPilot server into operation in your network. Use this checklist (as well as the packing list provided with your order) to ensure that you have all the components you need.

**Note:** Store the software media in a safe place and use it when instructed in the documentation. CallPilot server software is pre-installed at the factory, so you may not be asked to use some of these CD-ROMs unless you are performing a recovery, reinstallation, expansion, or upgrade.

Item	Part number
<input type="checkbox"/> CallPilot 1.07 Server CD-ROM	NTUB40AC
<input type="checkbox"/> CallPilot 1.07 PEP CD-ROM	NTUB43AC
<input type="checkbox"/> CallPilot 1.07 Language Prompts CD-ROM set (3)	NTUB44BC
<input type="checkbox"/> CallPilot 1.07 Admin Client CD-ROM	NTUB41AC
<input type="checkbox"/> CallPilot 1.07 Desktop Messaging CD-ROM	NTUB42AC
<input type="checkbox"/> CallPilot 1.07 Web Messaging CD-ROM	NTUB45AC
<input type="checkbox"/> Windows NT 4.0 OS Recovery CD-ROM	NTRH8027
<b>Note:</b> This is required for a situation where software must be reinstalled.	
<input type="checkbox"/> Application Server Master Driver CD-ROM (Issue 1.03)	NTRH8101
<b>Note:</b> The bootable feature of the Application Server Master Driver CD-ROM is not supported by the 201i server.	
<input type="checkbox"/> CallPilot 1.07 Documentation CD-ROM	NTRG19AE
<input type="checkbox"/> The following CallPilot documentation (available in printed format or from your CallPilot Documentation CD-ROM):	
<input type="checkbox"/> this guide	
<input type="checkbox"/> <i>Documentation Addendum</i>	not applicable
<input type="checkbox"/> <i>201i Installation and Configuration Guide</i>	NTRG18AC
<input type="checkbox"/> <i>Administrator's Guide</i>	P0905796

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Item	Part number
<input type="checkbox"/> <input type="checkbox"/> <i>Monitoring and Security for the Administrator Guide</i>	P0905791
<input type="checkbox"/> <i>Reporter Guide</i>	P0905798
<input type="checkbox"/> <i>Desktop Messaging Software Installation and Maintenance Guide</i>	P0905810
<b>Note:</b> You need most of these documents to successfully implement and maintain your CallPilot system. For more details, see “CallPilot documentation” on page 12.	

---

# Inspecting the 201i server

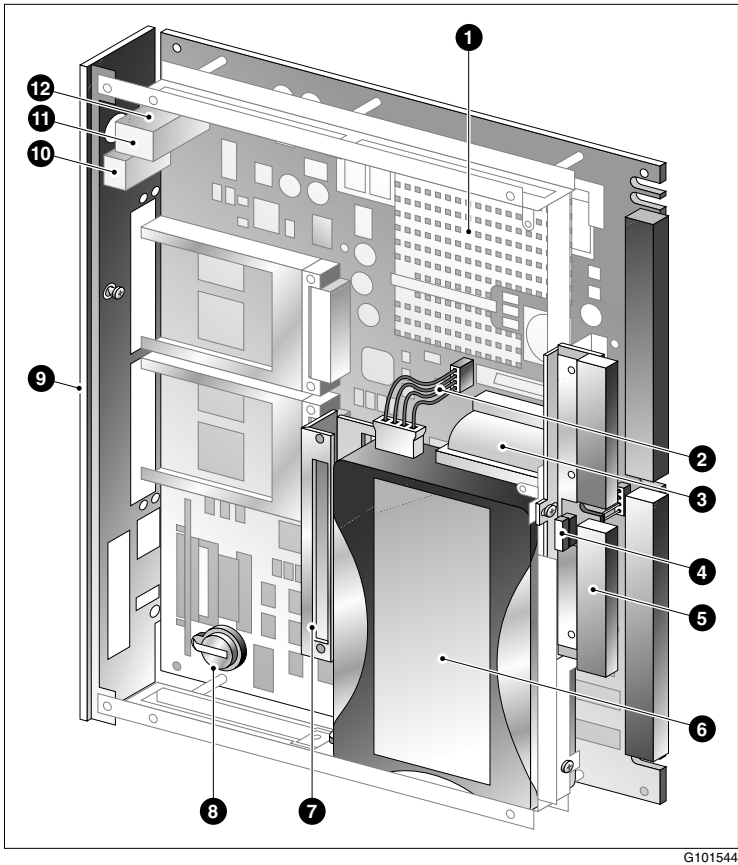
## Introduction

This section describes how to inspect the 201i server for damage. It also describes what to do if you determine that the 201i server is faulty.

## 201i server description

The following table identifies the major components on the 201i server. A diagram follows the table:

Item	Description
1	Heat sink
2	Hard drive power cable
3	Hard drive data cable
4	Secondary backplane connector pin
5	Secondary backplane connector
6	3.5" IDE hard drive
7	Hard drive mounting bracket
8	Software feature key
9	Faceplate
10	Monitor connector
11	Mouse connector
12	Keyboard connector



**To inspect the 201i server for shipping damage**

Before proceeding with the installation, visually inspect the 201i server for any damage that might have occurred during shipping. Ensure also that the items in the following checklists are secure:

Item	Yes	No
Is the software feature key securely seated in its bracket?	<input type="checkbox"/>	<input type="checkbox"/>
Are the hard drive and hard drive bracket interface secure?	<input type="checkbox"/>	<input type="checkbox"/>
Are all cables securely seated?		
■ hard drive power cable	<input type="checkbox"/>	<input type="checkbox"/>
■ hard drive data cable	<input type="checkbox"/>	<input type="checkbox"/>

## What to do if components are missing or damaged

IF	THEN
you observe any damage	contact your Nortel Networks technical support representative.
components have become loose	secure them. For instructions, refer to <i>Part 5: 201i Server Maintenance and Diagnostics</i> (NTP 555-7101-119), Standard 1.0, October 2000 in the <i>CallPilot 201i Installation and Configuration</i> binder.
you are satisfied that the 201i server has arrived at your site undamaged	you are ready to proceed with installation.

## What's next?

1. Gather the equipment, tools, and materials that you must supply yourself. Complete the following checklists:
  - “Customer-supplied equipment checklist” on page 56
  - “Required tools and materials” on page 57
2. Prepare for Succession CSE 1000 system and CallPilot server configuration by completing the following worksheets:
  - “Succession Communication Server for Enterprise 1000 configuration worksheet” on page 58
  - “CallPilot Configuration Wizard worksheet” on page 60
  - “CallPilot logon access worksheet” on page 62

## Customer-supplied equipment checklist

Ensure that the equipment identified in the following checklist is available:

Check	Description
<input type="checkbox"/>	PC that can be used as an administration client PC The administrative PC can be on the CLAN or the ELAN. Refer to <i>Part 4: Client Software Installation Guide</i> of the <i>CallPilot 201i Installation and Configuration</i> binder for details on the administration client PC.
<input type="checkbox"/>	TCP/IP-based ELAN that connects the Succession CSE 1000 system and CallPilot server
<input type="checkbox"/>	A hub for the ELAN (or appropriate alternative) and power cord
<input type="checkbox"/>	Ethernet connections ready at the Succession CSE 1000 system (cables and Ethernet transceivers)
<input type="checkbox"/>	TCP/IP-based CLAN that can connect Desktop Messaging users to the server, if Desktop Messaging has been purchased
<input type="checkbox"/>	Hub for the CLAN (optional) or appropriate alternative
<input type="checkbox"/>	Jacks and a cable for connecting the server to the CLAN (optional)
<input type="checkbox"/>	Web server PC, if Web Messaging has been purchased Refer to “CallPilot Web Messaging” in the <i>Desktop Messaging Software Installation Guide</i> (NTP 555-7101-505) for details.
<input type="checkbox"/>	Cable for connecting the ELAN to the customer WAN (optional)



## Required tools and materials

Ensure that the tools and materials identified in the following checklist are available. You may need to use them to perform installation tasks:

Check	Description
<input type="checkbox"/>	Antistatic ESD wrist strap (recommended)
<input type="checkbox"/>	Various sizes of Phillips cross-head and standard slot-head screwdrivers
<input type="checkbox"/>	A set of hex nut drivers
<input type="checkbox"/>	Sidecutters
<input type="checkbox"/>	Jumper removal tool or needle-nosed pliers
<input type="checkbox"/>	Tweezers
<input type="checkbox"/>	Tape measure for determining cable lengths
<input type="checkbox"/>	Pen for writing notes, cable lengths, and cable identifications
<input type="checkbox"/>	Cable tie wraps
<input type="checkbox"/>	Cable identification labels
<input type="checkbox"/>	Equipment log The equipment log is used to record the model and serial number of the system, all installed options, and other information.
<input type="checkbox"/>	Null modem serial cable (it can be useful for troubleshooting)
<input type="checkbox"/>	Laptop computer and CD-ROM drive (to read documentation on CD-ROM and to connect to the network on which the server is located for troubleshooting)

# Succession Communication Server for Enterprise 1000 configuration worksheet

Complete the following worksheet as preparation for configuring the Succession CSE 1000 system. For instructions on how to configure the system, refer to the following documents:

- Chapter 3, “Switch programming,” in *Part 3: Meridian 1 Switch Setup and CallPilot Server Configuration* (NTP 555-7101-222), Standard 2.0, November 2000 in the *CallPilot 201i Installation and Configuration* binder.
- the “Switch and server configuration updates (Part 3)” section in the *CallPilot Documentation Addendum*  
**Note:** For instructions on obtaining the latest *CallPilot Documentation Addendum*, see “Documentation Addendum” on page 12.
- *Succession Communication Server for Enterprise 1000 Input/Output X21 Administration* (NTP 553-3023-311)
- *Succession Communication Server for Enterprise 1000 Input/Output X21 Maintenance* (NTP 553-3023-511)

Field	Data
<b>Succession CSE 1000 system information</b>	
Customer number	
<b>ELAN Ethernet information (Overlay 117)</b>	
Primary IP address	
Subnet mask	
Default IP gateway (if connected also to the CLAN)	
<b>ACD queue and agents (Overlays 11 and 23)</b>	
ACD DN of CallPilot agents (Overlay 23)	
Agent TNs (Overlay 11)	
■ Position ID on Key0	
■ SCN on Key1	
Default ACD DN for CDN (Overlay 23)	

Field	Data
<b>CDN queues (Overlay 23)</b>	
Primary CDN (Voice Messaging)	
Secondary CDN (Multimedia Messaging)	
<b>Phantom DNS, if used instead of dummy ACD DNS (Overlays 10 and 97)</b>	
CallPilot application name	
Superloop (Overlay 97)	
Phantom DN (Overlay 10)	
DCFW CDN	
CallPilot application name	
Superloop (Overlay 97)	
Phantom DN (Overlay 10)	
DCFW CDN	
CallPilot application name	
Superloop (Overlay 97)	
Phantom DN (Overlay 10)	
DCFW CDN	
<b>Dummy ACD DNS, if used instead of phantom DNS (Overlay 23)</b>	
CallPilot application name	
ACD DN	
NCFW CDN	
CallPilot application name	
ACD DN	
NCFW CDN	
CallPilot application name	
ACD DN	
NCFW CDN	

## CallPilot Configuration Wizard worksheet

Complete the following worksheet as preparation for configuring the CallPilot server. For instructions on how to configure the CallPilot server, refer to the following documents:

- *Part 3: Meridian 1 Switch Setup and CallPilot Server Configuration* (NTP 555-7101-222), Standard 2.0, November 2000 in the *CallPilot 201i Installation and Configuration* binder
- the “Switch and server configuration updates (Part 3)” section in the *CallPilot Documentation Addendum*

**Note:** For instructions on obtaining the latest *CallPilot Documentation Addendum*, see “Documentation Addendum” on page 12.

Field	Data
<b>CallPilot information</b>	
Keycode	
Serial number	
Company name	
Customer name	
Computer name	
Time zone	
<b>Dialing information</b>	
Area code (for the server location)	
Country code (for the server location)	
<b>Multimedia allocation</b>	
DSP encoding	<input type="checkbox"/> A-law (Europe or Caribbean) <input type="checkbox"/> Mu-law (North America)
<b>CDN information</b>	
Primary DN (Voice Messaging)	
<b>Languages</b>	
Prompt languages to be installed	
<b>Note:</b> List each language you need to install.	

Field	Data
Primary language	
Secondary language	
Speech recognition language to be installed	
<b>Networking solutions</b>	
Networking solutions <b>Note:</b> Once you install a networking feature, you cannot remove it.	<input type="checkbox"/> Enterprise Networking <input type="checkbox"/> AMIS Networking <input type="checkbox"/> VPIM Networking
<b>Embedded LAN TCP/IP Information</b>	
CallPilot server's ELAN IP address	
Subnet mask	
<b>Switch information</b>	
Call Server's IP address	
Switch type	Option 11
Switch customer number	
Number of TNs	
Start TN	
Start TN Key 0 (Position ID)	
Start TN Key 1 (SCN)	
<b>Customer LAN TCP/IP information</b>	
CallPilot server's CLAN IP address	
Subnet mask	
Gateway	

## CallPilot logon access worksheet

Complete the following worksheet as preparation for configuring the CallPilot server for administrator logon or access by Nortel Networks technical support. For instructions on how to configure the CallPilot server, refer to *Part 3: Meridian 1 Switch Setup and CallPilot Server Configuration* (NTP 555-7101-222), Standard 2.0, November 2000 in the *CallPilot 201i Installation and Configuration* binder.

**Note:** This information is not requested by the CallPilot Configuration Wizard. You must configure these items via Windows NT.

Field	Data
<b>Remote Access Service (RAS) IP address range</b>	
Beginning of RAS IP address range <b>Note:</b> The range must include a minimum of two IP addresses. The range of IP addresses must be part of a valid ELAN or CLAN range of IP addresses.	
End of RAS IP address range	
<b>Administrator password</b>	
Current password	Default is <b>abc123</b>
New password	For security reasons, do not record the new password on this worksheet.
<b>System password (NGenSys)</b>	
Current password	
New password	For security reasons, do not record the new password on this worksheet.
<b>Distributor password (NGenDist)</b>	
Current password	
New password	For security reasons, do not record the new password on this worksheet.

## Chapter 3

---

# Safety guidelines

### In this chapter

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Avoiding electrostatic discharge	66
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Handling CD-ROMs	68

# Symbols and conventions

## Introduction

This section describes the symbols and conventions used in this binder.

## Symbols

You may encounter the following symbols in this guide:



### **DANGER**

---

#### **Risk of electric shock**

Warns you of an immediate electrical hazard which, if not avoided, will result in shock, serious injury, or death.



### **WARNING**

---

#### **Risk of personal injury**

Warns you of a situation in which you can be injured if instructions are not followed exactly as stated.



### **CAUTION**

---

#### **Risk of equipment damage**

Alerts you to situations where data can be lost or damaged, equipment can be damaged, actions can result in service interruption, and productive time can be lost.

### **ATTENTION**

---

Provides information that is essential to the completion of a task.

**Note:** A note describes the secondary results of procedures or commands, or special conditions under which a procedure or command must be used.



# General safety

## Introduction

When installing, replacing, or upgrading any system parts, follow Nortel Networks safety guidelines to prevent personal injury and damage to the server or replacement parts.



---

### WARNING

#### **Risk of personal injury and equipment damage**

Field maintenance must always be performed by fully qualified, trained personnel.

## Precautionary messages

This guide provides warnings when risks related to hardware installation and handling are known. Do not ignore these warnings.

**Note:** For a description of the potential impact that the warnings in this guide can have if they are ignored, refer to “Symbols and conventions” on page 64.

## General precautions

Nortel Networks recommends the following safety guidelines for performing installation and maintenance procedures:

- Plug the computer and peripheral devices into properly grounded power sources only, to prevent electric shock.
- Use a surge protector or uninterruptible power supply to protect your system from sudden increases and decreases in electrical power.
- Ensure that nothing rests on peripheral cables, and that you cannot trip over or step on the cables.
- Do not push any foreign objects into any server opening.
- When handling components, protect the server from electrostatic discharge by wearing an antistatic wrist strap attached to any unpainted metal surface on the Succession CSE 1000 system.

# Avoiding electrostatic discharge

## Introduction

Electrostatic discharge (ESD) can seriously damage component parts, such as boards, disk drives, and other parts.

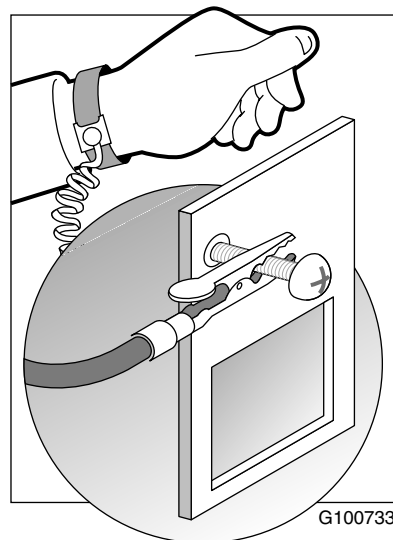
### ATTENTION

Nortel Networks recommends performing all hardware installation and maintenance procedures at an ESD workstation whenever possible.

## Antistatic wrist strap

If an ESD workstation is not available, provide some ESD protection by wearing an antistatic wrist strap. Ground the ESD wrist strap by attaching it to any unpainted metal surface on the Succession CSE 1000 system.

The following diagram shows the lead from the ESD wrist strap clipped to an exposed screw on a chassis:



## To discharge static

When working with server components, periodically touch a nearby unpainted metal surface to discharge any accumulated static.

# Handling components

## Introduction

To prevent damage to hardware components, follow the guidelines in this section.

## Handling boards

Nortel Networks recommends the following precautions for any procedure that includes handling component boards:

- After removing a board from its protective wrapper, place the board component-side up on a conductive foam pad.  
If possible, use antistatic floor pads and workbench pads as well.
- Do not slide a board over any surface.
- Do not touch board components or any gold-edge connectors on the board.
- Hold a board by the top edge or by the side edges.

# Handling CD-ROMs

## Introduction

When removing a CD-ROM from its protective case or loading it to a drive, hold it by its center hole and outer edge. Avoid touching the CD-ROM's data surface (the non-labeled side).

To protect the CD-ROM against scratches and dirt when not in use, keep it in its protective case.

## To load a CD-ROM

- 1 Press the eject button on the CD-ROM drive to eject the disk tray.
- 2 Place the CD-ROM on the tray with its labeled side facing up.
- 3 Press the eject button or gently press the front of the disk tray to retract the tray back into the drive.

## To eject a CD-ROM

- 1 Press the eject button on the CD-ROM drive to eject the disk tray.
- 2 Remove the CD-ROM from the tray and put it in its protective case.
- 3 Press the eject button or gently press the front of the disk tray to retract the tray back into the drive.

## Chapter 4

---

# Installing and connecting the 201i server

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# Overview

## Introduction

This chapter describes how to install the 201i server, cables, and peripheral devices.

## Media Gateway and Media Gateway Expansion slots

The 201i server occupies physical and electrical slots. You must install the 201i server in a pair of consecutive slots in any Media Gateway or Media Gateway Expansion.

For more details, see “Installing the 201i server” on page 77.

For more information about card slots, refer to the *Succession Communication Server for Enterprise 1000 Planning and Installation Guide* (NTP 553-3023-210).

## Connecting peripheral devices

### MPC cards

Two MPC-8 cards are pre-installed in the 201i server at the factory. However, this chapter describes how to install them if they have been removed from the 201i server.

### CD-ROM and tape drives

The following drives are supported:

- CD-ROM (NTRH9037): Plextor UltraPlex external SCSI CD-ROM drive
- tape drive (NTRH9038): Tandberg SLR5 tape drive

Before you connect CD-ROM and tape drives, you must

- set the SCSI ID, device termination, and DIP switches
- install the NTRH3502 SCSI cable

The NTRH3502 SCSI cable has a low profile right-angle connector that allows the SCSI device to be permanently connected to the 201i server's faceplate when the Media Gateway or Media Gateway Expansion cover is installed.

### Monitor, keyboard, and mouse

The monitor, keyboard, and mouse are connected to the 201i server faceplate so that you can

- observe the 201i server startup process
- run the Configuration Wizard
- perform initial administration after installation

The 201i server is not intended to operate with permanent monitor, keyboard, and mouse connections. Once you have successfully started and configured the 201i server, remove the monitor, keyboard, and mouse. For day-to-day administration, use an administrative PC that is connected to the ELAN or CLAN.

### **Modem**

The modem must be connected to the 201i server if

- you want to administer the 201i server from a remote location
- you need assistance from Nortel Networks technical support

Ensure that you set the DIP switches on the external fax modem before you connect it to the 201i server.

## **Maintaining Media Gateway and Media Gateway Expansion EMC requirements**

To ensure that the Media Gateway or Media Gateway Expansion in which the 201i server is installed meets electromagnetic compatibility (EMC) requirements, you must install two ferrites on the SCSI cable and two ferrites on the Media Gateway or Media Gateway Expansion power cord. The ferrites are provided in the EMC kit provided with the 201i server.

## **Connecting the 201i server to the network**

The Succession CSE 1000 system, ELAN, CLAN, and modem connections are established by using the 201i server's multi I/O cable as follows:

- Succession CSE 1000 connection: 50-pin amphenol connector
- ELAN and CLAN connections: RJ-45 CLAN and ELAN connectors (individually labeled), which support the following network protocols:
  - ELAN: 10Base-T Ethernet
  - CLAN: 10- or 100Base-T Ethernet
- modem connection: 9-pin male RS-232 connector

A 25-pin male to 9-pin female shielded serial cable connects the modem to the RS-232 connector on the multi I/O cable. The serial cable (A0601464) is supplied with the modem.

## **Starting the server**

To complete the installation of the 201i server, lock it into position in the Media Gateway or Media Gateway Expansion. If the Media Gateway or Media Gateway Expansion is connected to a power source, the 201i server starts automatically when the connection with the backplane is established.

You can observe the startup process on both the monitor and the 201i server's faceplate.





## Section A: Installing the 201i server

### In this chapter

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# Overview

## Introduction

This section describes how to install the 201i server and cables.

## External CD-ROM and tape drive cable

Before you can connect a CD-ROM or tape drive to the 201i server, you must install the NTRH3502 SCSI cable. The NTRH3502 SCSI cable has a low profile right-angle connector that allows the cable to be connected to the 201i server's faceplate when the Media Gateway or Media Gateway Expansion cover is installed. This allows the external SCSI device to remain permanently connected to the 201i server.

To ensure that the Media Gateway or Media Gateway Expansion in which the 201i server is installed meets electromagnetic compatibility (EMC) requirements, you must install two ferrites on the SCSI cable. See "EMC kit" below.

## Modem, ELAN, CLAN, and power cables

The following items are connected to the back of the Media Gateway or Media Gateway Expansion:

- multi I/O cable (NTRH0912)  
This cable establishes the connection to the modem, ELAN, and CLAN.
- Media Gateway or Media Gateway Expansion power cord with two ferrites

You must connect the multi I/O cable first before connecting the power cord, because the power cord routes above the multi I/O cable connection.

To ensure that the Media Gateway or Media Gateway Expansion meets EMC requirements, you must install two ferrites on the power cord. See "EMC kit" below.

## EMC kit

Ensure that you have the EMC Kit (NTRH3503). The kit contains ferrites that must be installed on the NTRH3502 SCSI cable and the Media Gateway or Media Gateway Expansion's power cord to maintain EMC requirements.

If you do not have the kit, contact your Nortel Networks distributor.

# Removing the Media Gateway or Media Gateway Expansion cover

## Introduction

To access the interior of the Media Gateway or Media Gateway Expansion, you must remove the front bezel and inside front cover plate.

## To remove the front bezel and inside front cover plate

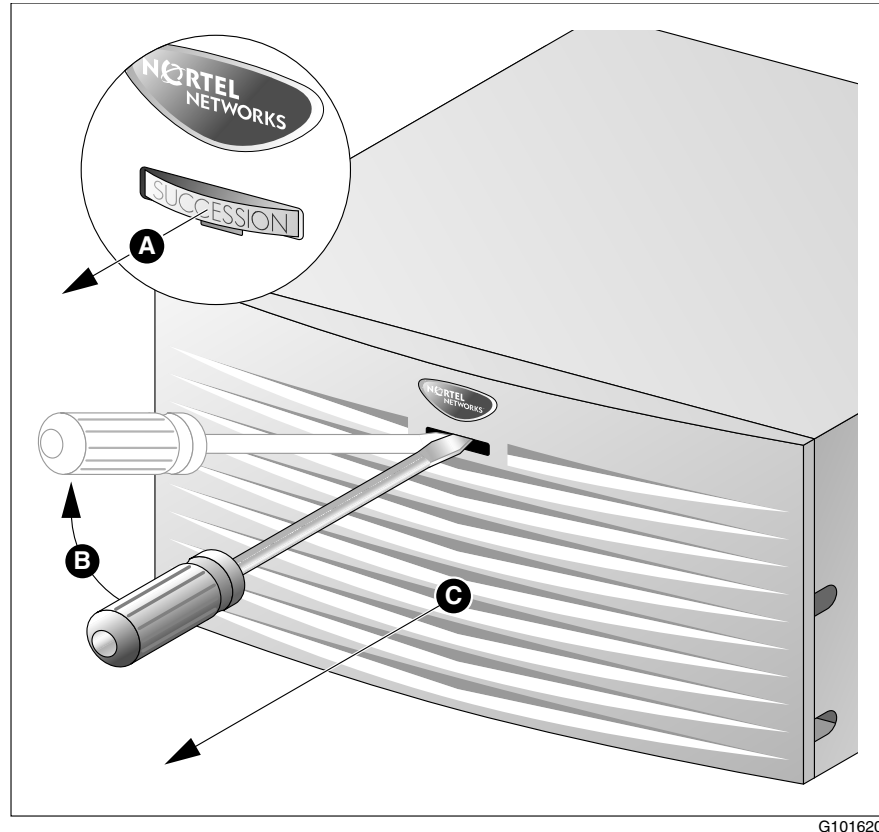


### WARNING

#### Risk of eye injury

Nortel Networks recommends that you operate the Media Gateway and Media Gateway Expansion with their front bezels installed. When the blue LEDs inside these units are lit, they are very bright. Avoid staring at them.

- 1 Remove the front bezel from the Media Gateway or Media Gateway Expansion as follows:

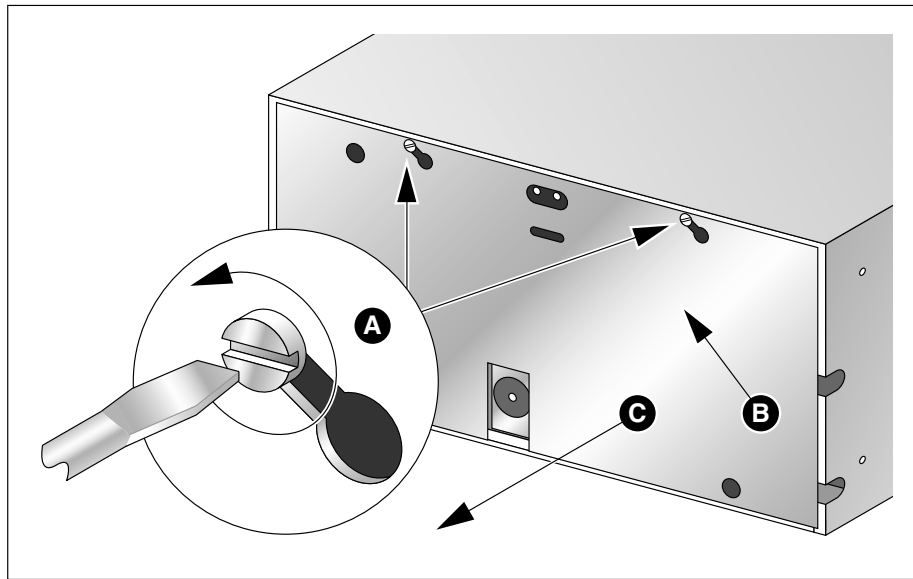


- a. Use a slot screwdriver to gently pry off the SUCCESSION label.
- b. Insert the screwdriver approximately 2 cm (.75 in.) into the open slot, and then gently lift the screwdriver handle, thus applying downward pressure on the tab inside the bezel.

At the same time, gently pull the bezel away from the chassis (approximately 2 cm [.75 in.]) until the inside tab has cleared the catch.

- c. Grasp the bezel by both sides and carefully pull it straight away from the Media Gateway or Media Gateway Expansion.

**2** Remove the inside front cover plate as follows:



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- a. Use a screwdriver to loosen each screw on the top of the inside front cover plate by three turns.

**ATTENTION**

Do not remove the screws.

- b. Apply pressure and slide the inside front cover plate upward *to the left* until the screw holes are aligned with the screw heads.
- c. Pull the inside front cover plate away from the Media Gateway or Media Gateway Expansion.

**3** Continue with "Installing the 201i server" on page 77.

# Installing the 201i server

## Introduction

This section describes how to install the 201i server inside the Media Gateway or Media Gateway Expansion.

## Before you begin

Determine which pair of consecutive slots you will use to house the 201i server. The following table identifies the Media Gateway and Media Gateway Expansion slots into which the CallPilot 201i server can be installed:

Unit	The 201i server can be installed in	Ineligible slots
Media Gateway	Slots 1 and 2	Slot 0 is dedicated to the SSC card.
	Slots 2 and 3	Slot 4 (includes slots 5 and 6) is not used.
Media Gateway Expansion	Slots 7 and 8	Slot 10 is a double-wide slot. The second half of this slot does not have a backplane connector.
	Slots 8 and 9	
	Slots 9 and 10	

For more information about card slots, refer to the *Succession Communication Server for Enterprise 1000 Planning and Installation Guide* (NTP 553-3023-210).

For the logical slot numbers that you must use when you configure the Succession CSE 1000 system, see “Physical and logical slot numbering” on page 118.

## To install the 201i server inside the Media Gateway or Media Gateway Expansion

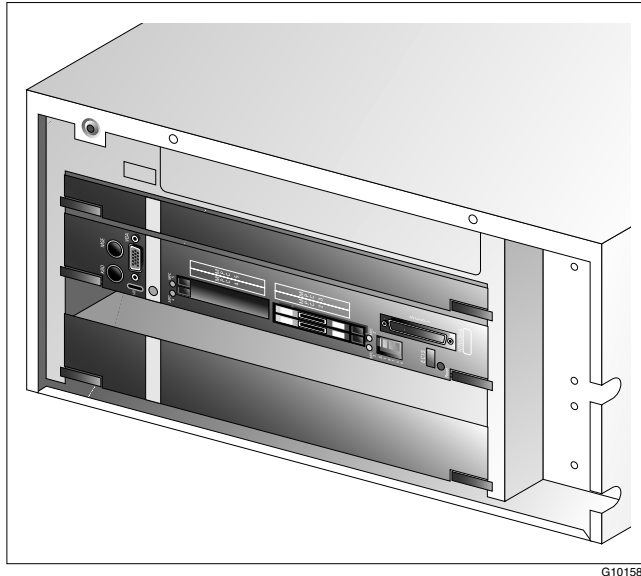
- 1 Ensure that no cables are connected to the slots in which you are installing the 201i server.
- 2 Open the lock latches at the top and bottom of the 201i server faceplate.

**Note:** When you open the top lock latch, it breaks the yellow backplane warning label if it has not been removed. Remove the label and continue with this procedure. The label is not relevant for the Succession CSE 1000 system.

- 3 Slide the 201i server into an unoccupied pair of slots.

The 201i server requires two consecutive unoccupied slots. Ensure that the 201i server is positioned correctly between the slots.

When correctly inserted, the top of the 201i server is on the left. See the following diagram:



#### ATTENTION

Do not push the 201i server into place against the backplane until you are ready to observe the startup cycle.

If the Media Gateway or Media Gateway Expansion is connected to a power source, the 201i server receives power and starts as soon as the 201i server is connected to the backplane.

- 4 Continue with “Installing the NTRH3502 SCSI cable” on page 79.

# Installing the NTRH3502 SCSI cable

## Introduction

This section explains how to install the NTRH3502 cable.

The NTRH3502 SCSI cable has a low profile right-angle connector that allows the cable to be connected to the 201i server's faceplate when the Media Gateway or Media Gateway Expansion cover is installed. This allows the external SCSI device to remain permanently connected to the 201i server.

## Before you begin

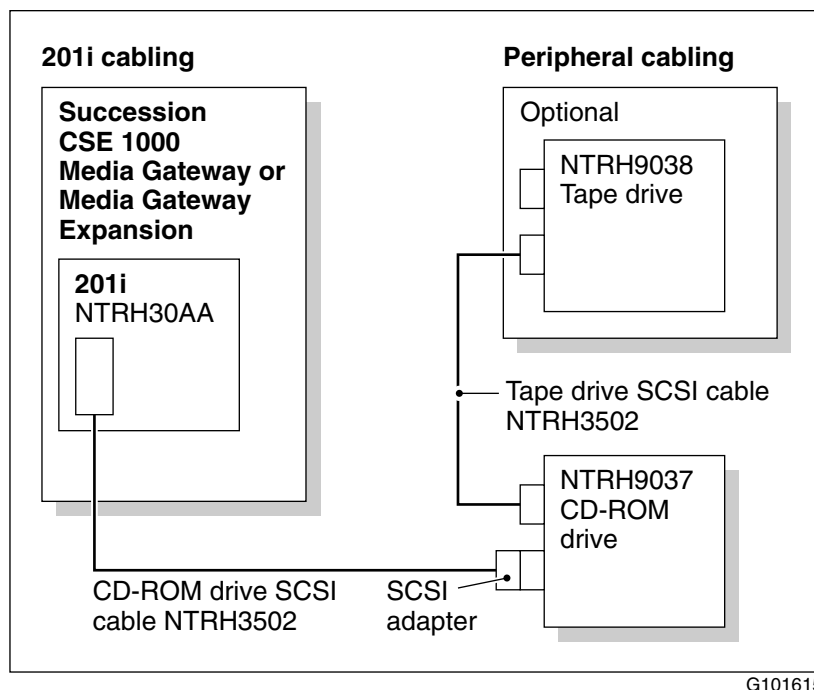
Ensure that you have the EMC Kit (NTRH3503).

The kit contains ferrites that must be installed on the NTRH3502 SCSI cable to maintain Media Gateway or Media Gateway Expansion EMC requirements. If you do not have the kit, contact your Nortel Networks distributor.

## CD-ROM and tape drive cabling diagram

The following diagram shows how the intermediate SCSI cable, CD-ROM drive, and tape drive are connected to the 201i server.

In this diagram, the CD-ROM drive is the first device. The tape drive is the last device:

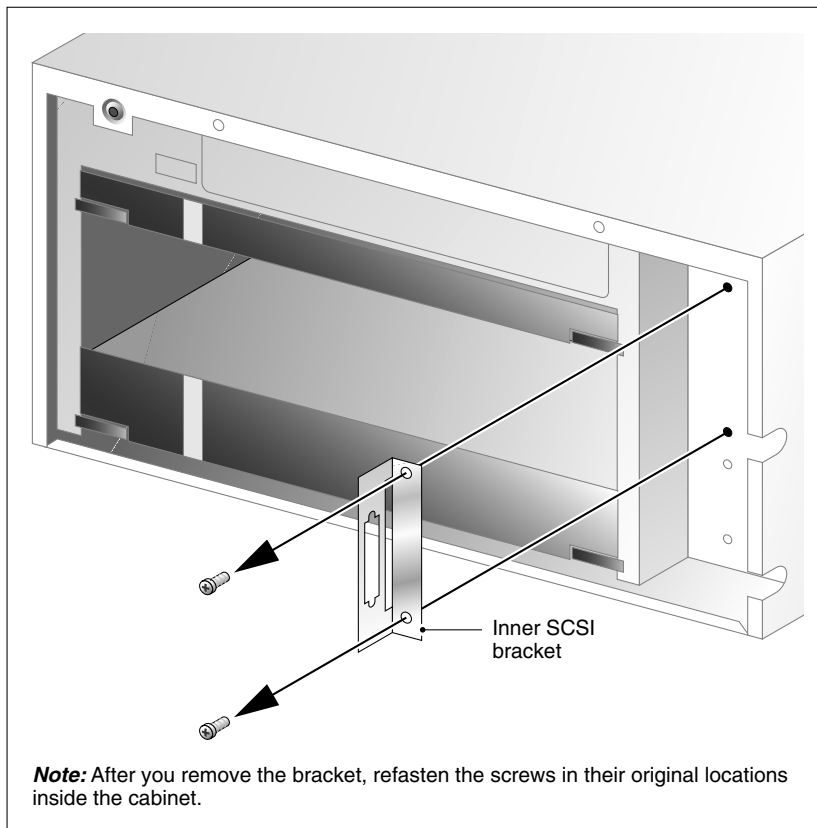


**Note:** Before you install the SCSI devices in a daisy chain, you must configure the SCSI device IDs and DIP switches. For instructions, see Section B: “Preparing the peripheral devices,” on page 89.

### To install the NTRH3502 cable

- 1 Remove the inner SCSI bracket from the inside of the Media Gateway or Media Gateway Expansion.

See the following diagram:



G101587

- 2 Refasten the inner SCSI bracket screws in their original locations inside the Media Gateway or Media Gateway Expansion.  
You will use one of the screws later to fasten the NTRH3502 SCSI cable's drain wire.
- 3 Connect the low profile right-angle SCSI connector on the NTRH3502 cable to the SCSI connector on the 201i server faceplate.

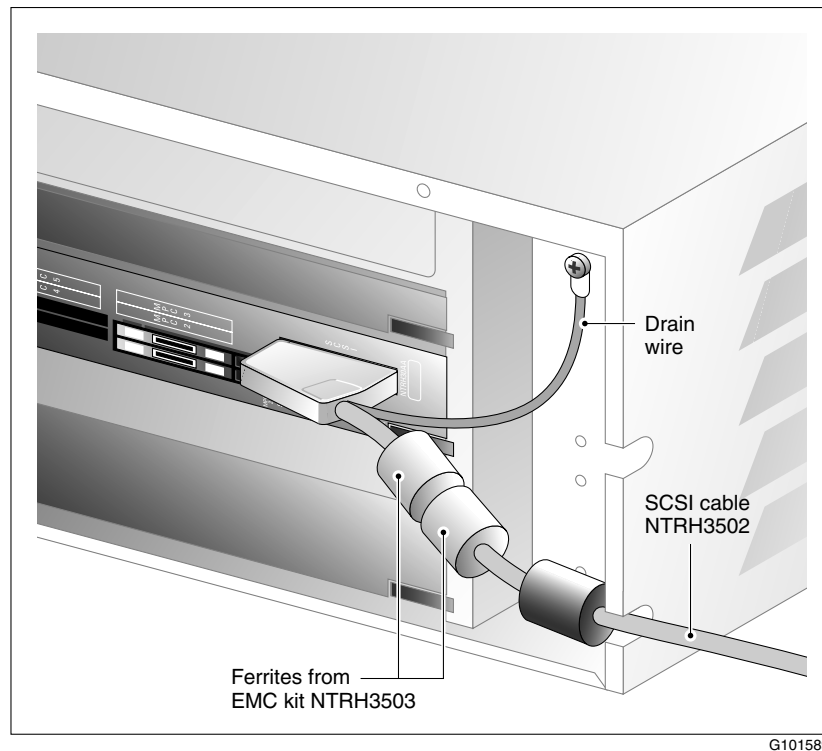


- 4 Fasten the SCSI cable's drain wire to one of the screws that previously held the inner SCSI bracket in place.

**Notes:**

- Use the screw that is the most convenient.
  - Press firmly on the drain wire's Y-connector until it snaps into place around the screw post.
- 5 Attach and then position two ferrites from the NTRH3503 EMC kit to the SCSI cable as follows:
    - a. Position the ferrites as close to the SCSI connector as possible.
    - b. Secure the ferrites with a tie wrap.
    - c. Route the SCSI cable across the inside of the Media Gateway or Media Gateway Expansion and out through one of the cable openings.

See the following diagram:



- 6 Replace the inside front cover plate.

For instructions, see "To replace the inside front cover plate" on page 83.

**ATTENTION**

Ensure that the tabs on the bottom and right side of the inside front cover plate are positioned inside the Media Gateway or Media Gateway Expansion.

- 7** Replace the front bezel.

For instructions, see “To replace the front bezel” on page 84.

- 8** Continue with “Connecting cables to the Media Gateway or Media Gateway Expansion” on page 86.

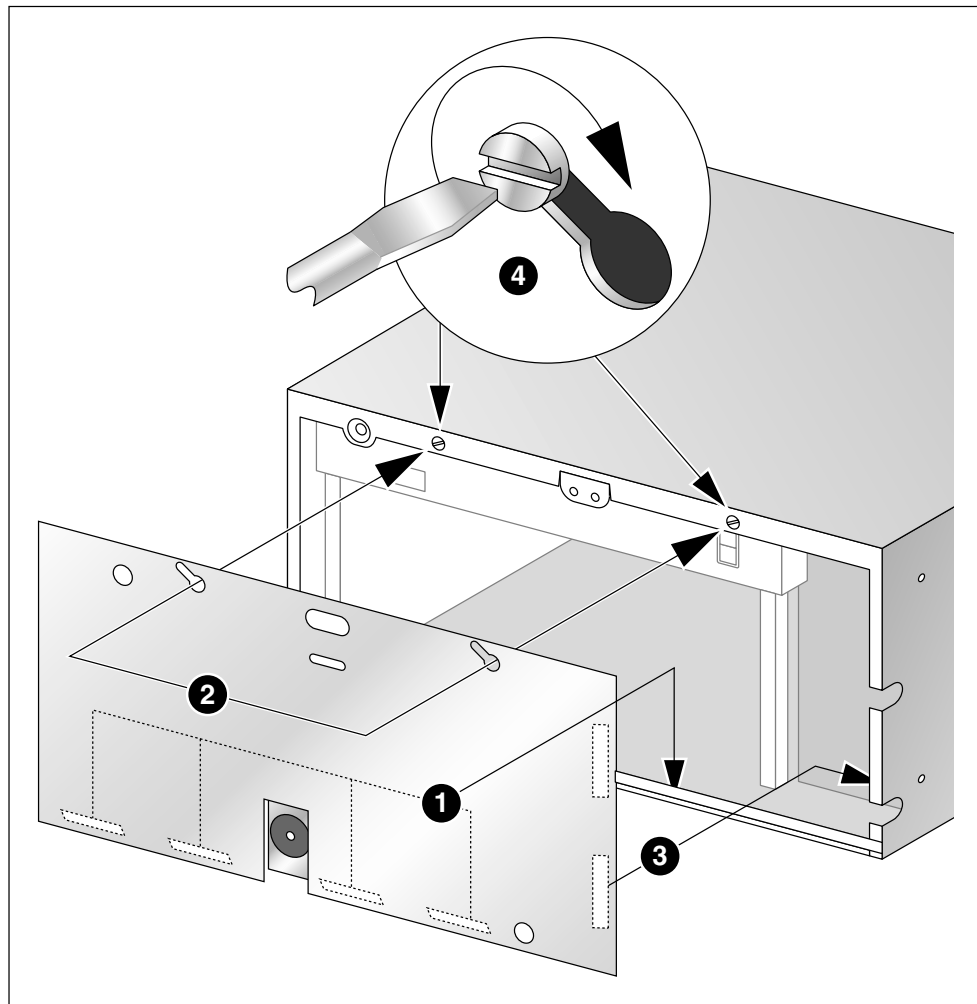
# Replacing the Media Gateway or Media Gateway Expansion cover

## Introduction

This section describes how to replace the front bezel and inside front cover plate on the Media Gateway or Media Gateway Expansion.

## To replace the inside front cover plate

The following diagram provides an overview of how to install the inside front cover plate:



G101625

- 1 Insert the bottom tabs of the front cover plate inside the bottom rail.
- 2 Align the screw holes on the front cover plate over the screw heads on the Media Gateway or Media Gateway Expansion.
- 3 Slide the front cover plate downward to the right, ensuring that the side tabs slide behind the side rail.
- 4 Tighten the screws to secure the front cover plate.
- 5 Continue with “To replace the front bezel,” below.

## To replace the front bezel

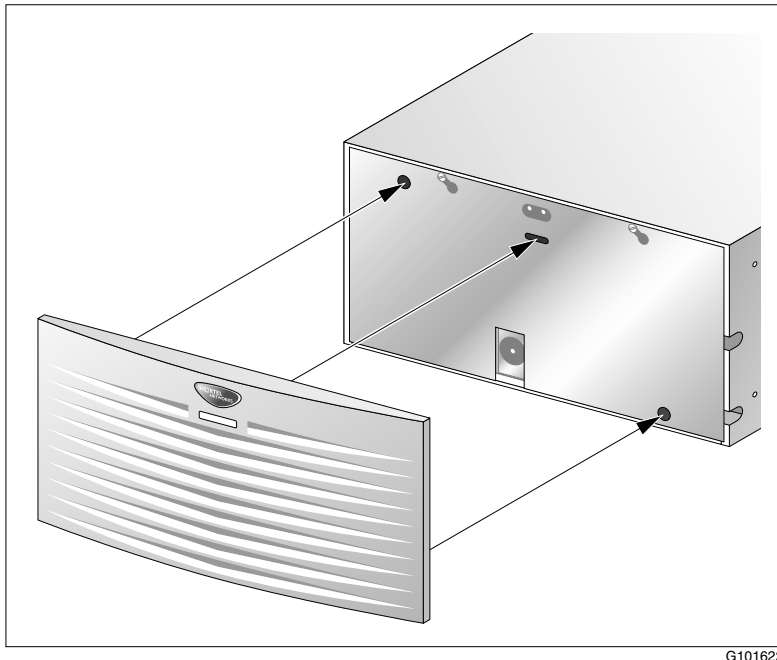


### WARNING

#### Risk of eye injury

Nortel Networks recommends that you operate the Media Gateway and Media Gateway Expansion with their front bezels installed. When the blue LEDs inside these units are lit, they are very bright. Avoid staring at them.

- 1 Align the two posts and the locking tab on the rear of the front bezel with the slots on the inside front cover plate.



G101622

- 2 Push the bezel toward the Media Gateway or Media Gateway Expansion until it snaps into place.
- 3 Replace the SUCCESSION label.

**What's next?**

Install the 201i server's multi I/O cable and the Media Gateway or Media Gateway Expansion power cord. For instructions, see "Connecting cables to the Media Gateway or Media Gateway Expansion" on page 86.

# Connecting cables to the Media Gateway or Media Gateway Expansion

## Introduction

You must install the following items on the back of the Media Gateway or Media Gateway Expansion:

- multi I/O cable (NTRH0912)
- power cord and two ferrites

## Before you begin

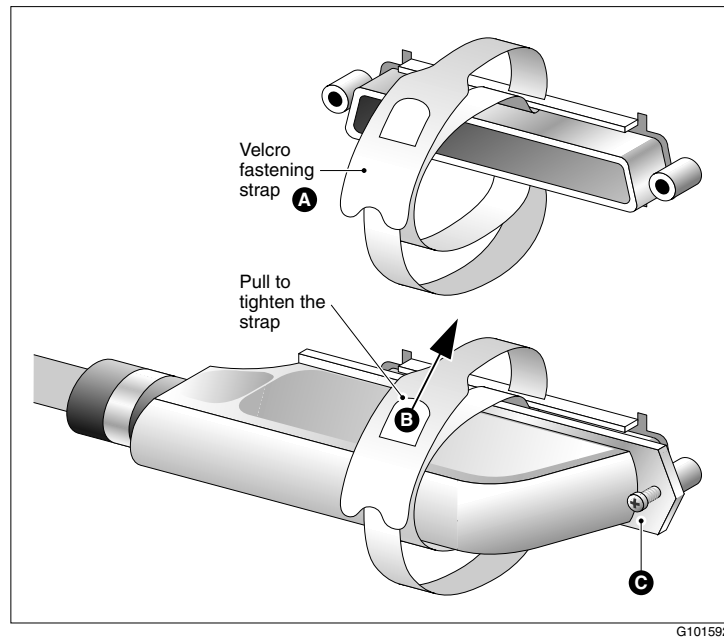
Ensure that you have the EMC Kit (NTRH3503). The kit contains ferrites that must be installed on the Media Gateway or Media Gateway Expansion's power cord to maintain EMC requirements.

If you do not have the kit, contact your Nortel Networks distributor.

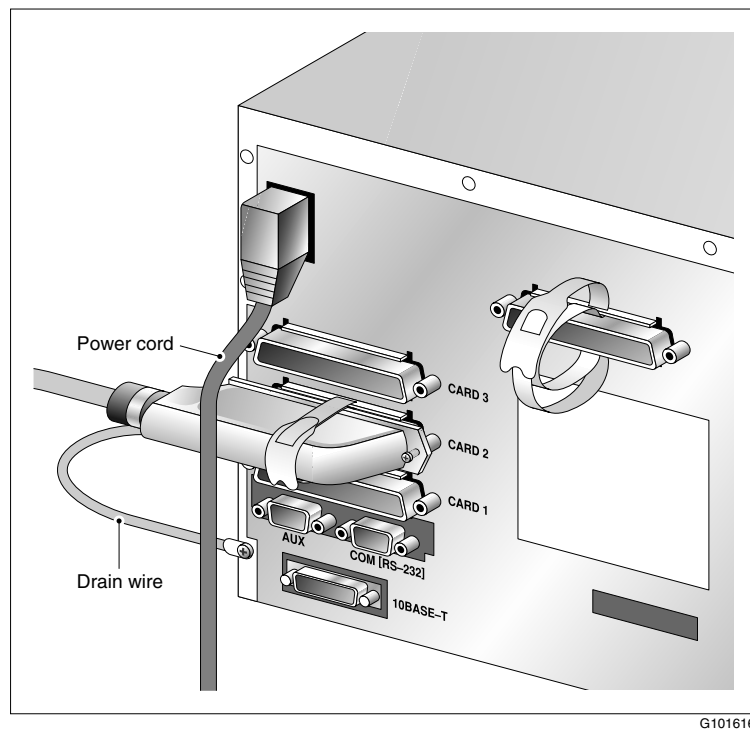
## To connect the cables

- 1 On the rear of the Media Gateway or Media Gateway Expansion, locate the connector associated with the first slot occupied by the 201i server.
- 2 Connect the NTRH0912 multi I/O cable as follows:
  - a. Loosen the connector's Velcro fastening strap.
  - b. Connect the amphenol connector on the NTRH0912 multi I/O cable to the connector on the back of the Media Gateway or Media Gateway Expansion.
  - c. Secure the connection by tightening the connector's retaining screw and Velcro fastening strap.

The following diagram shows how to secure the multi I/O cable connection.

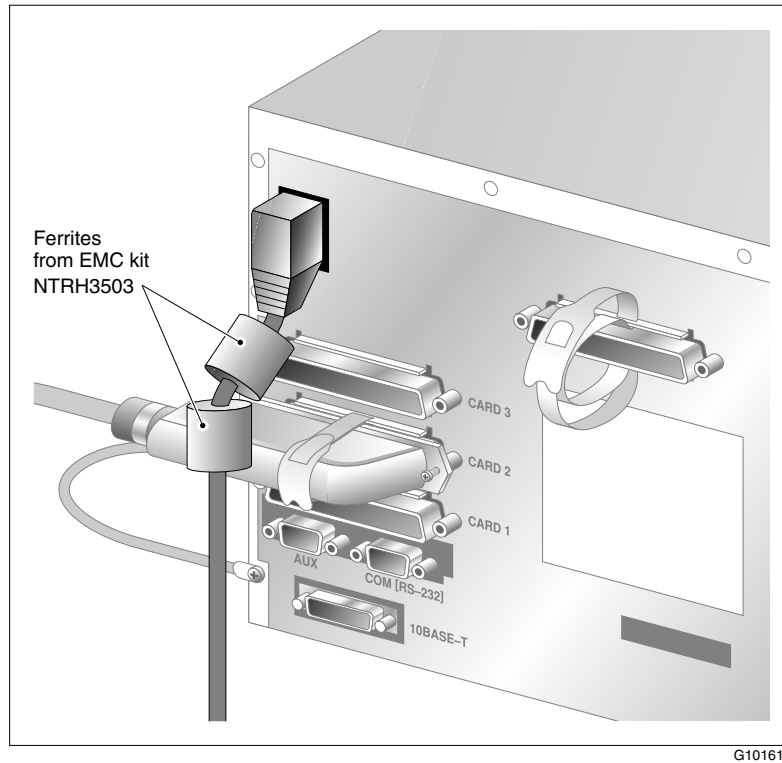


- 3** Attach the multi I/O cable's drain wire to a screw on the Media Gateway or Media Gateway Expansion.  
See the diagram in step 4.
- 4** Connect the power cord to the Media Gateway or Media Gateway Expansion.



- 5 Attach two ferrites from the NTRH3503 EMC kit to the power cord.

Position the ferrites as far up the power cord as possible, and then secure them with a tie wrap, as shown in the following diagram:



### What's next?

Prepare the modem, CD-ROM drive, and tape drive for connection to the 201i server. For instructions, see Section B: "Preparing the peripheral devices," on page 89.



## **Section B: Preparing the peripheral devices**

### **In this section**

Overview	90
Setting the modem DIP switches	91
Setting the CD-ROM drive's SCSI ID and DIP switches	93
Setting the tape drive's SCSI ID	95
Setting SCSI device termination	96

# Overview

## Introduction

You can connect a modem and one or more SCSI devices to the 201i server.

The modem is connected to the 201i server's multi I/O cable.

The SCSI devices are connected to the NTRH3502 SCSI cable, which is connected to the 201i server's faceplate. If there is more than one SCSI device, the devices are daisy chained together. Each device on the SCSI bus must have a unique SCSI ID, and only the last device in the chain is terminated.

## Supported SCSI devices

You need an external CD-ROM drive to upgrade, reinstall, and configure the 201i server. Since the CD-ROM drive is an external device, it requires its own AC power source.

You can use an external SCSI tape drive to back up and restore data. Since the tape drive is an external device, it also requires its own AC power source.

### ATTENTION

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The CD-ROM and tape drives are not hot-pluggable. You must shut down the 201i server before you connect or disconnect either drive.

**Note:** Optionally, you can use the hard drive on the administrative PC instead of the tape drive to perform and store backups.

This section discusses the following drives:

- CD-ROM (NTRH9037): Plextor UltraPlex external SCSI CD-ROM drive
- tape drive (NTRH9038): Tandberg SLR5 tape drive

**Note:** This is currently the only supported tape drive.

## DIP switches, SCSI ID, and SCSI device termination settings

For correct operation with the 201i server, you must set the following:

- DIP switches on the modem and CD-ROM drive
- SCSI ID and device termination on the CD-ROM and tape drives

## Setting the modem DIP switches

### Introduction

This section describes how to set the modem's DIP switches.

### To set the modem DIP switches

Use a pair of tweezers to set the DIP switches as described in the "Change to" column of the following table.

**Note:** The DIP switches are located on the back of the modem. ON is down. OFF is up.

DIP switch	Default setting	Change to	Function
1	OFF	OFF	Data Terminal Ready (DTR) override <ul style="list-style-type: none"> <li>■ OFF: Normal DTR operations (The computer must provide a DTR signal for the modem to accept commands. If the DTR signal is not provided, the call is terminated.)</li> <li>■ ON: Modem ignores DTR (override)</li> </ul>
2	OFF	OFF	Verbal/numeric result codes <ul style="list-style-type: none"> <li>■ OFF: Displays verbal (word) results</li> <li>■ ON: Displays numeric results</li> </ul>
3	ON	ON	Result code display <ul style="list-style-type: none"> <li>■ OFF: Suppresses result codes</li> <li>■ ON: Enables result codes</li> </ul>
4	OFF	OFF	Command mode local echo suppression <ul style="list-style-type: none"> <li>■ OFF: Displays keyboard commands</li> <li>■ ON: Suppresses echo</li> </ul>
5	ON	ON	Auto answer suppression <ul style="list-style-type: none"> <li>■ OFF: Modem answers on first ring, or higher if specified in NVRAM</li> <li>■ ON: Disables auto answer</li> </ul>

DIP switch	Default setting	Change to	Function
6	OFF	OFF	Carrier Detect (CD) override <ul style="list-style-type: none"><li>■ OFF: Modem sends CD signal when it connects with another modem; drops CD on disconnect</li><li>■ ON: CD is always ON (override)</li></ul>
7	OFF	OFF	Power-on and ATZ reset software defaults <ul style="list-style-type: none"><li>■ OFF: Loads Y or Y1 configuration from user-defined nonvolatile memory (NVRAM)</li><li>■ ON: Loads the &amp;F0-Generic template from read-only memory (ROM)</li></ul>
8	ON	ON	AT command set recognition <ul style="list-style-type: none"><li>■ OFF: Disables command recognition (dumb mode)</li><li>■ ON: Enables recognition (smart mode)</li></ul>

# Setting the CD-ROM drive's SCSI ID and DIP switches

## Introduction

This section describes how to set the CD-ROM drive's SCSI ID and DIP switches.

### ATTENTION

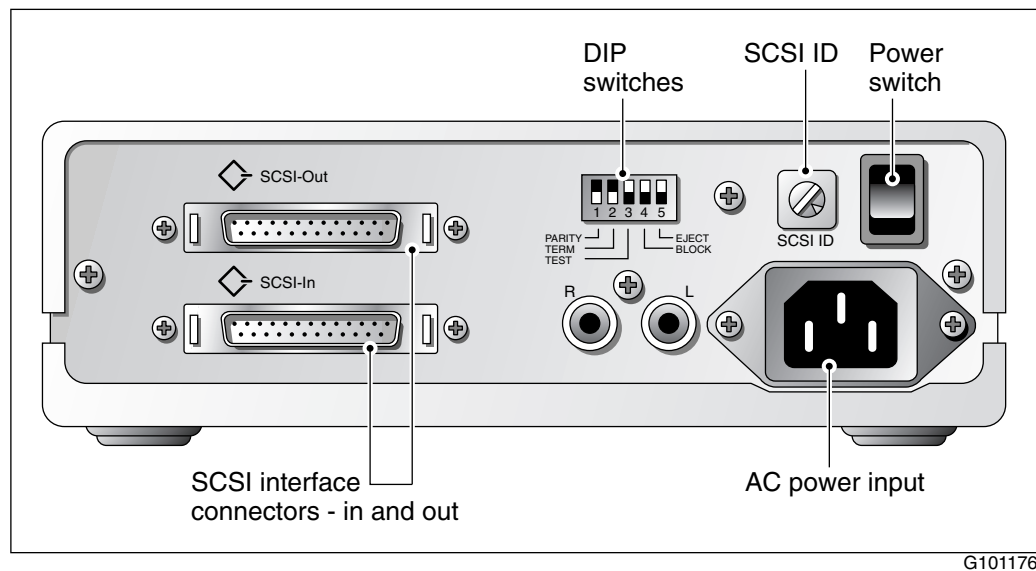
To recognize the new settings, power down the CD-ROM drive before changing the SCSI ID and DIP switches.

**Note:** The CD-ROM drive discussed in this section is the Plextor UltraPlex external SCSI CD-ROM drive (NTRH9037).

## To set the CD-ROM drive SCSI ID

The SCSI ID setting is located on the back of the CD-ROM drive. (See the diagram that follows.)

To change the SCSI ID, use the blade of a screwdriver to rotate the SCSI ID dial's arrow to 3.



## To set the CD-ROM drive's DIP switches

Set the CD-ROM drive's DIP switches as described in the following table:

DIP switch	Description	Setting
1	Parity	ON
2	Termination	<b>Note:</b> For more information about daisy chaining SCSI devices, see “Setting SCSI device termination” on page 96.  If the CD-ROM drive is the first and only device, set this switch to ON.  If the CD-ROM drive is the first device in a daisy chain with the tape drive, set this switch to OFF.
3	Test	OFF (for factory use only)
4	Block	OFF
5	Eject	OFF  <b>Note:</b> If this switch is set to ON, the eject button on the CD-ROM drive is disabled. To eject the CD-ROM from the drive, a software eject command must be sent over the SCSI bus.

## What's next?

If you are also installing a tape drive, set the tape drive's SCSI ID (see page 95); otherwise, set the CD-ROM drive's device termination (see page 96).

## Setting the tape drive's SCSI ID

### Introduction

This section describes how to set the tape drive's SCSI ID.

#### ATTENTION

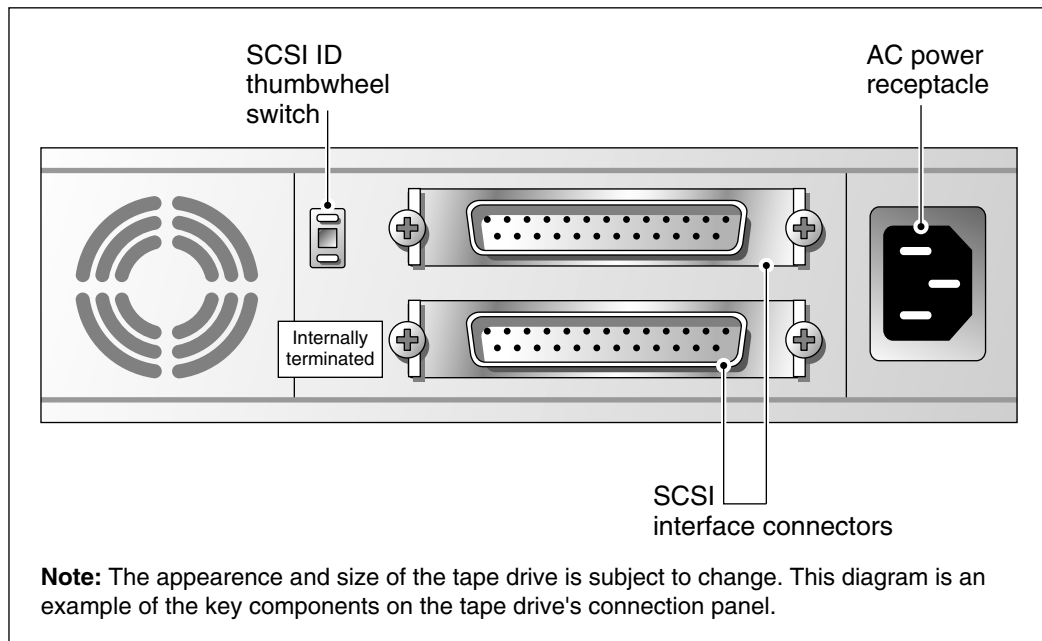
To recognize the new settings, power down the tape drive before changing the SCSI ID.

**Note:** The tape drive discussed in this section is the Tandberg SLR5 tape drive (NTRH9038). This is currently the only supported tape drive.

### To set the tape drive SCSI ID

The SCSI ID setting is located on the back of the tape drive. See the diagram that follows.

To change the SCSI ID, use the blade of a screwdriver to press either the plus (+) or minus (–) button on the SCSI ID thumbwheel switch. Set the SCSI ID to 5.



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# Setting SCSI device termination

## Introduction

If you will be connecting SCSI devices in a daisy chain, you must terminate the last device in the daisy chain. This section describes how to terminate the SCSI devices.

### ATTENTION

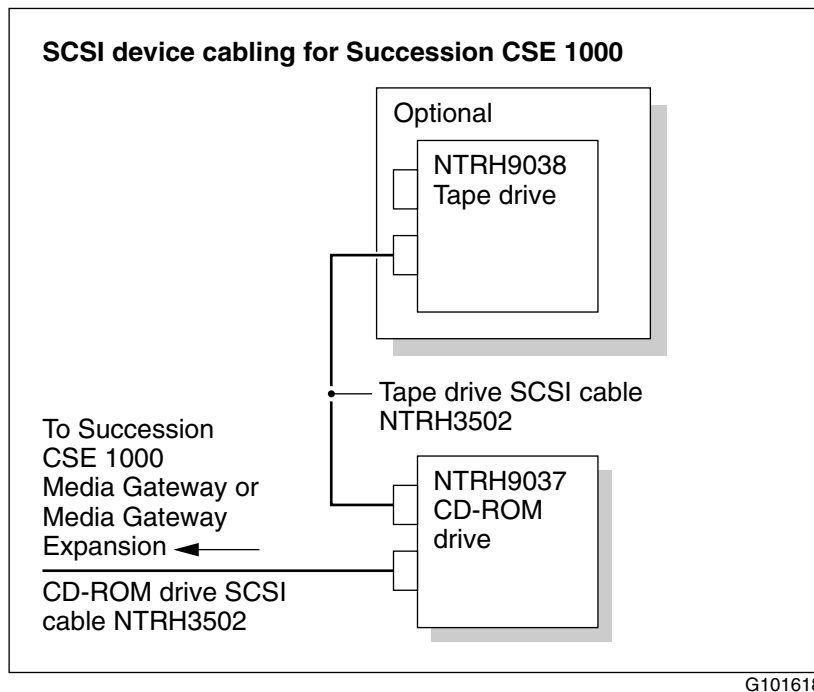
To recognize the new settings, ensure the CD-ROM and tape drives are powered down before changing the device termination.

## Supported daisy chain connection scenarios

The first device in a SCSI device daisy chain can be either the tape drive or the CD-ROM drive. However, since the Tandberg SLR5 tape drive is already internally terminated at the factory, Nortel Networks recommends that you connect the tape drive as the last device.

The following diagram shows the supported daisy chain and SCSI cable connections for the Succession CSE 1000 system. The CD-ROM drive is the first device in the daisy chain. The tape drive is the last device.

For more information about cabling requirements, see “Installing the NTRH3502 SCSI cable” on page 79.





## To set device termination

Terminate the SCSI devices as described in the following table:

<b>IF you are connecting</b>	<b>THEN</b>
a CD-ROM drive only	set DIP switch 2 on the back of the CD-ROM drive to ON. This terminates the drive.
a tape drive only	do nothing.  External termination is not required because the drive is already internally terminated. This is indicated by a label on the back or front of the tape drive.
both a CD-ROM drive and a tape drive (the tape drive is the last device)	set DIP switch 2 on the back of the CD-ROM drive to OFF.  The tape drive is internally terminated. External termination is not required.

## What's next?

Connect the monitor, keyboard, mouse, CD-ROM drive, tape drive, modem, and ELAN hub. See Section C: "Connecting the peripheral devices," on page 99.



## **Section C: Connecting the peripheral devices**

### **In this section**

Overview	100
Installing the MPC cards	103
Installing the monitor, keyboard, and mouse	105
Connecting the CD-ROM and tape drives	107
Connecting the 201i server to the ELAN and CLAN	109
Connecting the modem	111

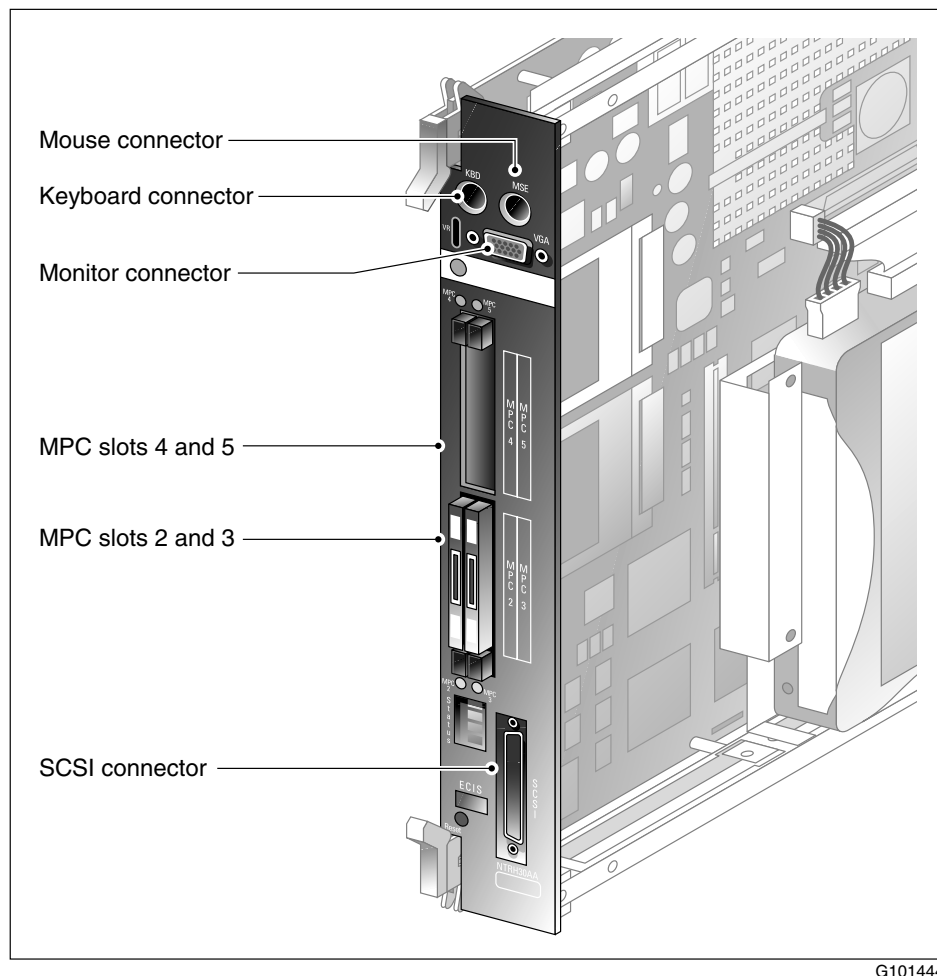
# Overview

## Introduction

This section describes how to connect the monitor, keyboard, mouse, CD-ROM and tape drives, modem, and ELAN hub to the 201i server. It also explains how to install the MPC-8 cards if they have been removed from the 201i server.

## 201i server faceplate and peripheral device connectors

The following diagram identifies the peripheral device connectors and slots on the 201i server faceplate:



G101444

## Connecting peripheral devices

### MPC cards

Two MPC-8 cards are preinstalled at the factory. This section describes how to install these cards if they have been removed from the 201i server. The MPC-8 cards are keyed so that they fit only one way into the slots on the 201i server faceplate. If the cards are inserted incorrectly, the cards do not go all the way into the slots.

### CD-ROM and tape drives

Before you connect CD-ROM and tape drives, ensure that you have set the SCSI ID, termination, and DIP switches as described in Section B: “Preparing the peripheral devices,” on page 89.

### Monitor, keyboard, and mouse

You must connect the monitor, keyboard, and mouse to the 201i server faceplate so that you can

- observe the 201i server startup process
- run the Configuration Wizard
- perform initial administration after installation

The 201i server is not intended to operate with permanent monitor, keyboard, and mouse connections. Once you have successfully started and configured the 201i server, remove the monitor, keyboard, and mouse. For day-to-day administration, use an administrative PC that is connected to the ELAN or CLAN.

### Modem

The modem must be connected to the 201i server. This is useful when

- you want to administer the 201i server from a remote location
- you need assistance from Nortel Networks technical support

Ensure that you have set the DIP switches on the external fax modem before you connect it to the 201i server. See “Setting the modem DIP switches” on page 91.

## Connecting the 201i server to the network

You establish the Succession CSE 1000 system, ELAN, CLAN, and modem connections by using the 201i server’s multi I/O cable.

The Succession CSE 1000 system connector is a 50-pin amphenol connector.

The RJ-45 CLAN and ELAN connectors (individually labeled) support the following network protocols:

- ELAN: 10Base-T Ethernet
- CLAN: 10- or 100Base-T Ethernet

The modem connector is a 9-pin male RS-232 connector. To connect this cable to the modem, you also need a 25-pin male to 9-pin female shielded serial cable (A0601464, supplied with the modem).

# Installing the MPC cards

## Introduction

Two MPC cards are preinstalled at the factory in slots 2 and 3. This section describes how to install these cards if they have been removed from the 201i server. MPC cards are hot-pluggable.

## Correct card insertion

The MPC-8 card is keyed so that it fits only one way into the slot on the 201i server faceplate. If it is inserted incorrectly, the card does not go all the way into the slot.



### CAUTION

#### Risk of equipment damage

If you force the card into the slot incorrectly, you can damage the MPC-8 card and 201i server.

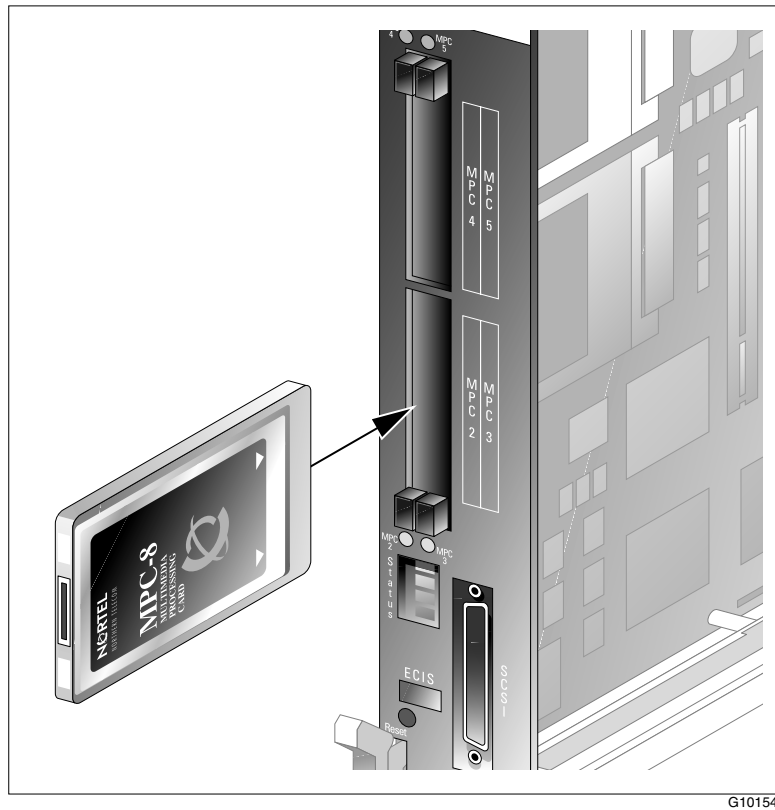
## To install the MPC cards

- 1 Do one of the following:

IF the MPC cards	THEN
are already installed	ensure that they are firmly seated in slots 2 and 3.
are not installed	continue with the rest of this procedure.

- 2 Ensure that the MPC-8 card label is facing up (assuming that the 201i server is already installed in the Media Gateway or Media Gateway Expansion).

**Note:** The diagram on the next page shows MPC-8 orientation in relation to the 201i server.



**3** Insert the card into the slot.

Gently push the card until it is firmly in place and the ejector button pops back out.

**Note:** Insert the cards into slots 2 and 3 only, in numerical order as listed on the 201i server faceplate. Slots 4 and 5 are for future use.

## What's next?

Connect the monitor, keyboard, and mouse to the 201i server's faceplate. See page 105.



# Installing the monitor, keyboard, and mouse

## Introduction

You must connect the monitor, keyboard, and mouse to the 201i server so that you can

- observe the 201i server startup process
- run the Configuration Wizard
- perform initial administration after installation

**Note:** The 201i server is not intended to operate with permanent monitor, keyboard, and mouse connections. Once you have successfully started and configured the 201i server, remove the monitor, keyboard, and mouse. For day-to-day administration, use an administrative PC that is connected to the ELAN or CLAN.

## Hardware requirement



### CAUTION

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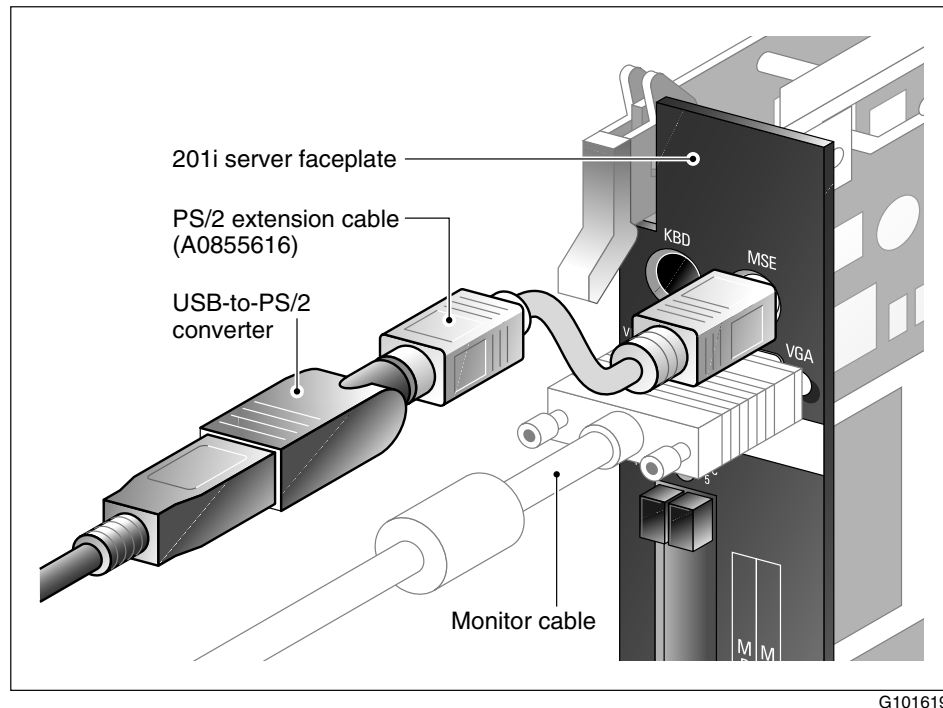
#### Risk of equipment damage

The mouse connector on the 201i faceplate is a PS/2 connector. If you plan to use a USB mouse with USB-to-PS/2 converter, you must also use the Nortel Networks-supplied 4-inch PS/2 extension cable (A0855616).

Without the extension cable, the monitor connector partially blocks the USB-to-PS/2 mouse connector.

#### PS/2 extension cable

The diagram on the next page shows the PS/2 extension cable connected between the 201i server and a USB mouse with USB-to-PS/2 converter.



### To connect the monitor, keyboard, and mouse

- 1 Connect the monitor to the 201i server's faceplate using a DB-15 cable.
- 2 Connect the monitor's power cord, and then power up the monitor.
- 3 Connect the keyboard and mouse to the 201i server's faceplate using standard PS/2 connectors.

### What's next?

Connect the CD-ROM and tape drives. See page 107.

# Connecting the CD-ROM and tape drives

## Introduction

You can connect the CD-ROM, tape drive, or both, to the NTRH3502 SCSI cable that you installed earlier.

## Before you begin

Before you can connect the CD-ROM or tape drive, ensure that you have completed the following tasks:

1. Install the NTRH3502 SCSI cable (see page 79).
2. Set the SCSI ID and device termination settings as described in
  - “Setting the CD-ROM drive’s SCSI ID and DIP switches” on page 93
  - “Setting the tape drive’s SCSI ID” on page 95
  - “Setting SCSI device termination” on page 96

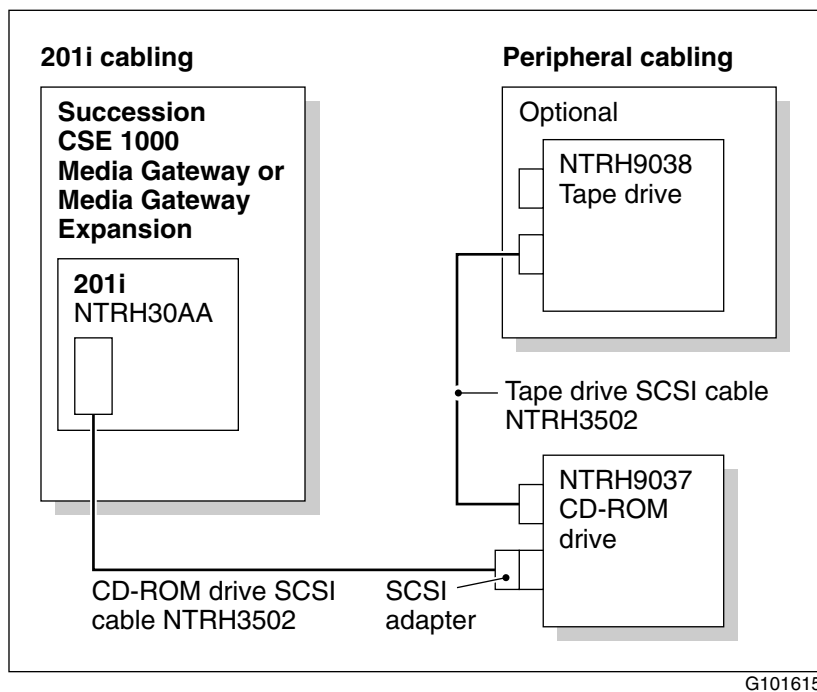
## To connect the CD-ROM and tape drives to the 201i server

- 1 Connect the first SCSI device as follows:

IF the first device is the	THEN
CD-ROM drive	do the following: <ol style="list-style-type: none"> <li>a Attach the A0769312 SCSI adapter to the CD-ROM drive.</li> <li>b Connect the NTRH3502 SCSI cable you installed earlier to the SCSI adapter on the CD-ROM drive.</li> </ol>
tape drive	connect the NTRH3502 SCSI cable you installed earlier to the tape drive.

- 2 Connect an additional device in a daisy chain, if required, using either the SCSI cable supplied with the device or an NTRH3502 cable.

The following diagram shows cable connections, where the CD-ROM drive is the first device:



- 3** Connect the power cord for each device.
- 4** Power up the devices.

### What's next?

Connect the 201i server to the ELAN and CLAN. See page 109.

# Connecting the 201i server to the ELAN and CLAN

## Introduction

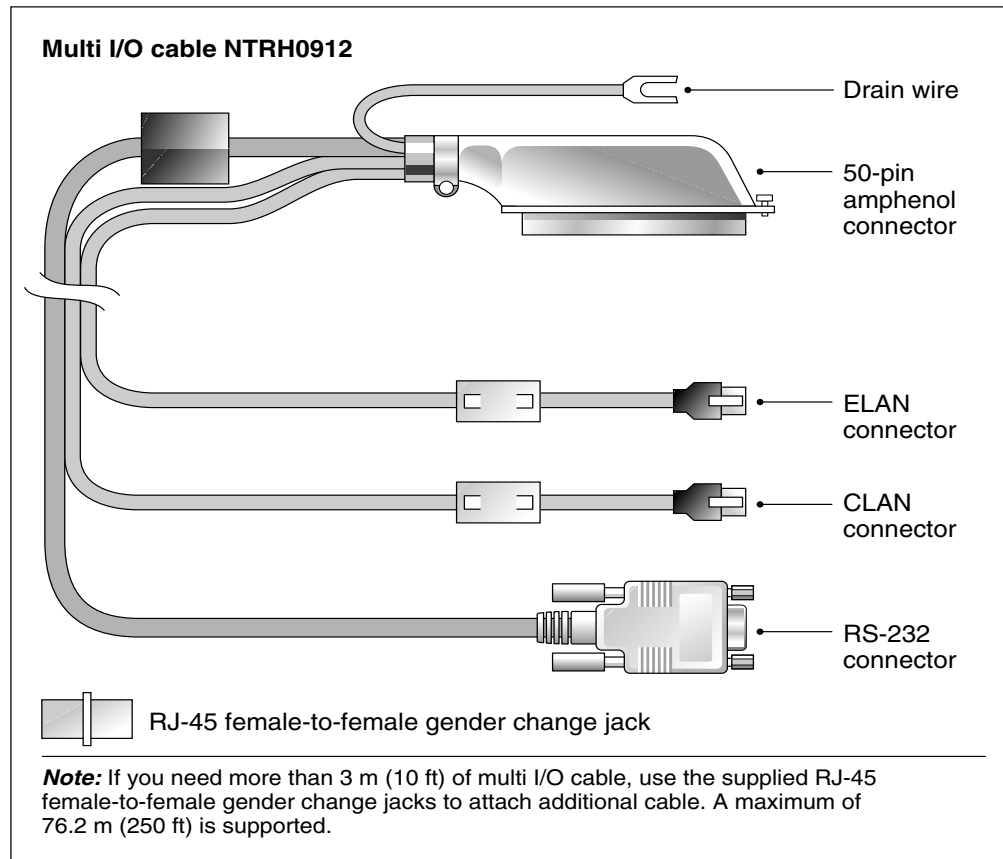
### ATTENTION

For important considerations about using the ELAN in your network, see “About the ELAN” on page 32.

You establish the CLAN and ELAN connections by using the 201i server’s multi I/O cable. The CLAN and ELAN connectors (individually labeled) support the following network protocols:

- CLAN: 10- or 100Base-T Ethernet
- ELAN: 10Base-T Ethernet

See the following diagram:



**To establish the connections**

- 1** Ensure that
  - the 50-pin amphenol connector on the multi I/O cable (NTRH0912) is securely fastened to the high-density connector associated with the first slot occupied by the 201i server
  - the amphenol connector's drain wire is connected to a screw on the back of the Media Gateway or Media Gateway Expansion
- 2** Connect the multi I/O cable connector that is labeled as ELAN to the Succession CSE 1000 system's network hub (ELAN hub).
- 3** Ensure that the Succession CSE 1000 system is also connected to the ELAN hub.
- 4** If CLAN is required, connect the multi I/O cable connector that is labeled as CLAN to the CLAN 10- or 100Base-T compliant network hub.

**What's next?**

Continue with "Connecting the modem" on page 111.

# Connecting the modem

## Introduction

You must connect the modem to the 201i server if

- you want to administer the 201i server from a remote location
- you need assistance from Nortel Networks technical support

## Required equipment

To install the modem, you need the following items:

- analog external modem (NTRH9016) which includes the following:
  - RJ-11 analog phone cord
  - power adapter cord
- 25-pin male to 9-pin female shielded serial cable (A0601464)
- two 0.25-inch nuts for installation between the RS-232 connector thumbscrews on the multi I/O cable and the 9-pin connector thumbscrews on the 25-pin male to 9-pin female shielded serial cable
- analog line jack

## To connect the modem

- 1 Ensure the DIP switches are set as described in “Setting the modem DIP switches” on page 91.
- 2 Attach the serial cable as follows:
  - a. Connect the 25-pin male end of the serial cable to the modem.
  - b. Attach the 0.25-inch nuts to the thumbscrews on the 9-pin female connector on the serial cable.
  - c. Connect the 9-pin female connector to the RS-232 COM1 connector on the multi I/O cable and tighten the nuts.
- 3 Connect one end of the RJ-11 phone cord to the line jack on the modem and the other end to an analog jack.



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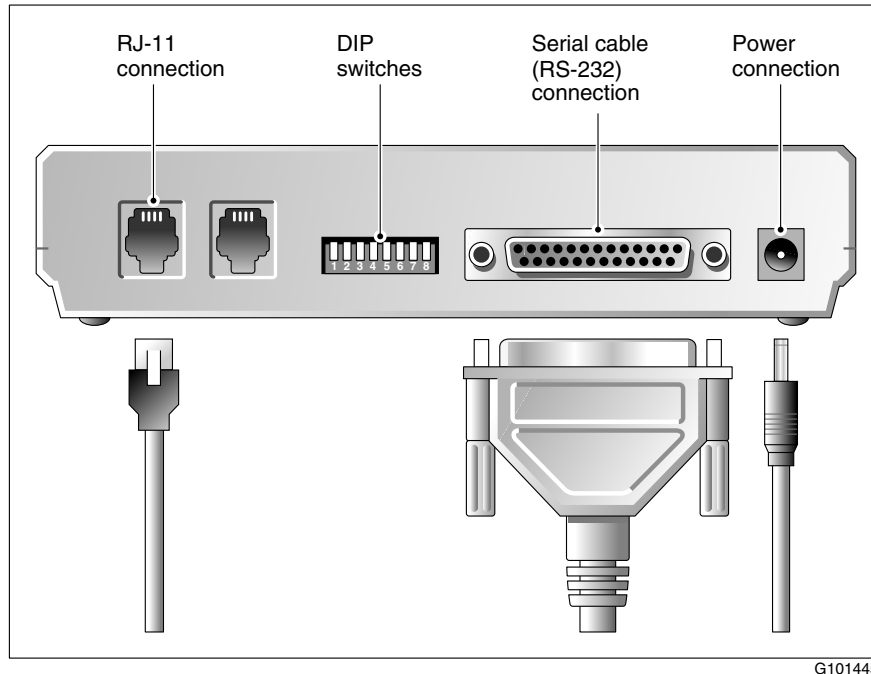
### CAUTION

#### Risk of equipment damage

Connect the modem to an analog line only. The use of a nonanalog line (for example, digital or Multiline) will damage the modem.

- 4 Plug the modem's power cord into an electrical outlet with an isolated ground.
- 5 Plug the other end of the power cord into the modem's power connector.

**Result:** The back of the modem appears similar to the following:



- 6 Power on the modem.

**Note:** Ensure the modem is receiving power by checking that at least one LED on its front panel is lit.

- 7 Place the modem in an area where it cannot be accidentally damaged and people cannot trip over attached cords.

## What's next?

Lock the 201i into position, and observe the startup process. See page 113.



## **Section D: Completing the installation**

### **In this section**

Starting the 201i server

114

# Starting the 201i server

## Introduction

To complete the installation of the 201i server, lock it into position in the Media Gateway or Media Gateway Expansion. If the Media Gateway or Media Gateway Expansion is connected to a power source, the 201i server starts automatically when the connection with the backplane is established.

You can observe the startup process on both the monitor and the 201i server's faceplate.

## Before you begin

1. Ensure that all peripheral devices are connected before you lock the 201i server in position against the backplane.  
Ensure that the devices are also powered up.
2. Ensure that the Media Gateway or Media Gateway Expansion is powered on.

## To complete the installation and start the 201i server

- 1 Push the 201i server gently but firmly until it is flush with the backplane.  
**Result:** The 201i server beeps for 3 seconds to indicate that power is being received.
- 2 Close the lock latches to secure the 201i server to the backplane.
- 3 Ensure that the power status LED is lit.
- 4 Watch the HEX display on the 201i server.  
The HEX display shows T:01 through T:08, and then HOST. This takes about 13 seconds.
- 5 When the following menu appears on the monitor, select option 1 to boot Windows NT:  
  
Select one of the following:  
-----  
1 Windows NT 4.0 Server (Default within 30 secs)  
2 Windows NT 4.0 Server (VGA mode)  
Choose an option[1,2]?1  
  
The Windows NT boot sequence begins, and communication with the Succession CSE 1000 system occurs. The HEX display shows NT (for about 30 seconds), followed by OK.

**Note:** Before OK appears, one of the following messages may appear, but not for more than 1 second: CDLN, C:01, or C:02. This is normal operation.

If OK does not appear, refer to *Part 5: 201i Server Maintenance and Diagnostics* (NTP 555-7101-119), Standard 1.0, October 2000 in the *CallPilot 201i Installation and Configuration* binder for troubleshooting instructions.

- 6 Ensure that the Windows NT logon window appears on the monitor.

**Note:** If the Windows NT logon window does not appear, refer to *Part 5: 201i Server Maintenance and Diagnostics* (NTP 555-7101-119), Standard 1.0, October 2000 in the *CallPilot 201i Installation and Configuration* binder for troubleshooting instructions.

## What's next?

Configure the Succession CSE 1000 system and CallPilot. See Chapter 5, "Configuring and testing the system."



## Chapter 5

---

# Configuring and testing the system

### In this chapter

Configuring the Succession Communication Server for Enterprise 1000 system	118
Configuring CallPilot	123
Testing the system	125

# Configuring the Succession Communication Server for Enterprise 1000 system

## Introduction

This section provides a high-level overview of how to configure the Succession CSE 1000 system for correct CallPilot operation.

## How call routing works on the Succession Communication Server for Enterprise 1000 system

Chapter 1, “Switch programming and call routing overview,” in *Part 3: Meridian 1 Switch Setup and CallPilot Server Configuration* (NTP 555-7101-222), Standard 2.0, November 2000 in the *CallPilot 201i Installation and Configuration* binder provides an overview of the Meridian 1 call routing components that are used by CallPilot.

Review this information before you proceed with the Succession CSE 1000 system and CallPilot server configuration. The concepts described there are identical for the Succession CSE 1000 system.

## Software requirements

Chapter 3, “Switch programming,” in *Part 3: Meridian 1 Switch Setup and CallPilot Server Configuration* (NTP 555-7101-222), Standard 2.0, November 2000 in the *CallPilot 201i Installation and Configuration* binder identifies the software and packages that are required to support CallPilot.

The Succession CSE 1000 system needs Succession CSE Release 01.00 (or later), and any patches that may be applicable to work with CallPilot.

## Physical and logical slot numbering

When you configure the Succession CSE 1000 system, use the logical slot numbers shown in the following tables:

Media Gateway and Media Gateway Expansion 1		Media Gateway and Media Gateway Expansion 2	
Physical slot	Logical slot	Physical slot	Logical slot
Media Gateway		Media Gateway	
1	11	1	21
2	12	2	22

<b>Media Gateway and Media Gateway Expansion 1</b>		<b>Media Gateway and Media Gateway Expansion 2</b>	
<b>Physical slot</b>	<b>Logical slot</b>	<b>Physical slot</b>	<b>Logical slot</b>
3	13	3	23
4	Not supported	4	Not supported
5	Not supported	5	Not supported
6	Not supported	6	Not supported
Media Gateway Expansion		Media Gateway Expansion	
7	17	7	27
8	18	8	28
9	19	9	29
10	20	10	30

<b>Media Gateway and Media Gateway Expansion 3</b>		<b>Media Gateway and Media Gateway Expansion 4</b>	
<b>Physical slot</b>	<b>Logical slot</b>	<b>Physical slot</b>	<b>Logical slot</b>
Media Gateway		Media Gateway	
1	31	1	41
2	32	2	42
3	33	3	43
4	Not supported	4	Not supported
5	Not supported	5	Not supported
6	Not supported	6	Not supported
Media Gateway Expansion		Media Gateway Expansion	
7	37	7	47
8	38	8	48
9	39	9	49
10	40	10	50

## Where to find detailed instructions

Detailed instructions for configuring the Succession CSE 1000 system for CallPilot interoperation are provided in the following documents:

Documentation set	Title
CallPilot	<ul style="list-style-type: none"><li>■ Chapter 3, “Switch programming,” in <i>Part 3: Meridian 1 Switch Setup and CallPilot Server Configuration</i> (NTP 555-7101-222), Standard 2.0, November 2000 in the <i>CallPilot 201i Installation and Configuration</i> binder.</li><li>■ the “Switch and server configuration updates (Part 3)” section in the <i>CallPilot Documentation Addendum</i></li></ul> <p><b>Note:</b> For instructions on obtaining the latest <i>CallPilot Documentation Addendum</i>, see “Documentation Addendum” on page 12.</p>
Succession CSE 1000	<ul style="list-style-type: none"><li>■ <i>Succession Communication Server for Enterprise 1000 Input/Output X21 Administration</i> (NTP 553-3023-311)</li><li>■ <i>Succession Communication Server for Enterprise 1000 Input/Output X21 Maintenance</i> (NTP 553-3023-511)</li></ul>



## Succession Communication Server for Enterprise 1000 configuration checklist

The following checklist provides a list of the tasks you must complete for correct CallPilot and Succession CSE 1000 system interoperation.

Step		Overlay	Check
1	Ensure that the ELAN for the AML link and its associated VSID in the configuration record is defined.  This provides the Ethernet connection over which AML messages are exchanged between the Succession CSE 1000 system and CallPilot.	17	<input type="checkbox"/>
2	If the Succession CSE 1000 system has not been defined with IP addresses, configure them for the ELAN and CLAN Ethernet interfaces.	117	<input type="checkbox"/>
3	Enable the ELAN link.	137	<input type="checkbox"/>
4	Enable the ELAN connection.	48	<input type="checkbox"/>
5	Define CallPilot in the customer data block with the Call Park Allowed (CPA) and Message Center Included (MCI) options enabled.	15	<input type="checkbox"/>
6	Define also in the customer data block, how unanswered and busy calls are routed.	15	<input type="checkbox"/>
7	Define the Call Forward by Call Type feature.	16	<input type="checkbox"/>
8	Create one ACD agent queue to hold all agents that service CallPilot.	23	<input type="checkbox"/>
9	Create an agent for each CallPilot channel.  All agents belong to the ACD agent queue that you created in step 8.	11	<input type="checkbox"/>
10	Enable the slots in which the 201i server is installed.	32	<input type="checkbox"/>
11	Define the ACD DN that will be referenced in each CDN queue.  Set this ACD DN as night call forward to the attendant.	23	<input type="checkbox"/>
12	Create two CDN queues as follows: ■ Create a primary CDN for Voice Messaging. ■ Create a secondary CDN for Multimedia Messaging.	23	<input type="checkbox"/>
13	If required, create a phantom loop.	97	<input type="checkbox"/>

Step		Overlay	Check
14	Create a phantom DN or dummy ACD DN for each service that must be directly dialable.	10 or 23	<input type="checkbox"/>
15	Provision user phonesets to support CallPilot. <b>Notes:</b> <ul style="list-style-type: none"><li>■ To determine which phonesets are supported by the Succession CSE 1000 system, refer to the <i>Succession Communication Server for Enterprise 1000 Planning and Installation Guide</i> (NTP 553-3023-210).</li><li>■ For instructions on provisioning i2004 phonesets, refer to <i>Succession Communication Server for Enterprise 1000 Input/Output X21 Administration</i> (NTP 553-3023-311).</li></ul>	10 or 11	<input type="checkbox"/>
16	If you purchased Network Message Service, configure the route data block.	16	<input type="checkbox"/>
17	Save the configuration changes.	43	<input type="checkbox"/>
18	If you made changes to the ELAN and CLAN Ethernet interface configuration in step 2 (page 121), perform a Succession CSE 1000 INI.	Not applicable	<input type="checkbox"/>

# Configuring CallPilot

## Introduction

This section provides a high-level overview of how to configure the CallPilot system.

## Configuration Wizard

Use the Configuration Wizard to configure the CallPilot server. Configure the CallPilot server as if it is installed in an Option 11C switch. The Configuration Wizard can be

- run in offline mode or online mode
- rerun to update or review the server's configuration

Before you begin, ensure that you have planned your responses to the Configuration Wizard by using the "CallPilot Configuration Wizard worksheet" on page 60.

For configuration instructions, refer to the following documents:

- Chapter 6, "Configuring the server software," in *Part 3: Meridian 1 Switch Setup and CallPilot Server Configuration* (NTP 555-7101-222), Standard 2.0, November 2000 in the *CallPilot 201i Installation and Configuration* binder.
- the "Switch and server configuration updates (Part 3)" section in the *CallPilot Documentation Addendum*

**Note:** For instructions on obtaining the latest *CallPilot Documentation Addendum*, see "Documentation Addendum" on page 12.

## Post-installation and configuration activities

After you configure the CallPilot server, you must also perform the following tasks to secure your CallPilot server and ensure it can be accessed from a remote location. Detailed instructions are provided in *Part 3: Meridian 1 Switch Setup and CallPilot Server Configuration* (NTP 555-7101-222), Standard 2.0, November 2000 in the *CallPilot 201i Installation and Configuration* binder.

1. Change the default Windows NT passwords on the server (see Chapter 7 in the above-listed guide)
2. Configure the Remote Access Service in Windows NT (see Chapter 8 in the above-listed guide).
3. Prepare the server for remote access with pcANYWHERE32 (see Chapter 9 in the above-listed guide).

**What's next?**

Test the CallPilot system to ensure that it can receive calls. For instructions, see “Testing the system” on page 125.

# Testing the system

## Introduction

This section provides a high-level overview of how to test the CallPilot system to ensure it is working correctly.

## Testing stages

You complete the tasks listed in the “System testing checklist” below in two stages.

The first stage is a basic sanity check to ensure that all connectivity is in place and working. Tests completed during this phase are described in *Part 3: Meridian 1 Switch Setup and CallPilot Server Configuration* (NTP 555-7101-222), Standard 2.0, November 2000 in the *CallPilot 201i Installation and Configuration* binder.

The second stage ensures that the messaging service and channels work as expected. Before you begin this testing stage, you must install and configure the administration client software as described in *Part 4: Client Software Installation Guide* (NTP 555-7101-212), Standard 1.0, May 2000 in the *CallPilot 201i Installation and Configuration* binder.

Tests completed during the second stage are described in the *CallPilot Documentation Addendum*. For instructions on obtaining the latest version of this document, see “Documentation Addendum” on page 12.

## System testing checklist

Step	Check
<b>Stage 1: Test CallPilot connectivity.</b>	
<b>Note:</b> For instructions, refer to Chapter 10 of <i>Part 3: Meridian 1 Switch Setup and CallPilot Server Configuration</i> (NTP 555-7101-222), Standard 2.0, November 2000 in the <i>CallPilot 201i Installation and Configuration</i> binder.	
1 Check CallPilot’s system ready indicators to see if CallPilot is ready to accept calls.	<input type="checkbox"/>
2 Test the connection to the ELAN.	<input type="checkbox"/>
3 Test the connection to the CLAN.	<input type="checkbox"/>
4 Verify that CallPilot answers when you dial the Voice Messaging DN.	<input type="checkbox"/>

Step	Check
<b>Stage 2: Test the CallPilot services and channels.</b>	
<b>Note:</b> For testing instructions, refer to the “Testing the CallPilot installation” section in the <i>CallPilot Documentation Addendum</i> . For instructions on obtaining the latest version of this document, see “Documentation Addendum” on page 12.	
5      Install and configure the administration client software on the administrative PC.	<input type="checkbox"/>
For instructions, refer to <i>Part 4: Client Software Installation Guide</i> (NTP 555-7101-212), Standard 1.0, May 2000 in the <i>CallPilot 201i Installation and Configuration</i> binder.	
6      Verify the connection between the CallPilot server and the administrative PC.	<input type="checkbox"/>
7      Verify that CallPilot Messaging Administration is installed.	<input type="checkbox"/>
8      Verify that you can leave a message.	<input type="checkbox"/>
9      Verify that you can retrieve a message.	<input type="checkbox"/>
10     Verify that each call channel and multimedia channel is functioning correctly.	<input type="checkbox"/>

## Chapter 6

---

# Troubleshooting system problems

### In this chapter

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# Overview

## Introduction

This section provides an overview of the resources and tools you can use to troubleshoot and resolve system problems.

## Resources

Three sources of documentation are available for resolving system problems:

- *Part 5: 201i Server Maintenance and Diagnostics* (NTP 555-7101-119), Standard 1.0, October 2000 in the *CallPilot 201i Installation and Configuration* binder
- Part 2 of *CallPilot Monitoring and Security for the Administrator* (NTP 555-7101-500), Standard 1.0, April 2000
- *CallPilot Troubleshooting Reference*

## Troubleshooting tools

The following tools are provided with your CallPilot system, and are briefly described in this chapter:

Type	Tools	
Generic tools	■ TCP/IP diagnostics	
Windows NT tools	■ Windows NT 4.0 diagnostics ■ Event Viewer	
CallPilot tools	■ LEDs and HEX display on the 201i server faceplate ■ startup sequence and diagnostic codes ■ log files ■ Event Browser ■ Alarm Monitor ■ Maintenance window	■ CallPilot System Configuration (to display the Succession CSE 1000 system and server settings) ■ Disk Usage window ■ Server Performance Monitor ■ Reporter ■ Channel Monitor ■ Multimedia Monitor



Type	Tools
CallPilot system utilities	■ Diagnostics utility
	■ Session Trace tool
	■ PEP Maintenance utility
■ System Information tool	■ Services Monitor
■ System Monitor	

---

# Using the *CallPilot 201i Server Installation and Configuration* binder

## Introduction

*Part 5: 201i Server Maintenance and Diagnostics* (NTP 555-7101-119), Standard 1.0, October 2000 in the *CallPilot 201i Installation and Configuration* binder provides instructions for using the resources provided by your 201i server.

## LEDs and HEX display on the 201i server's faceplate

The LEDs on the 201i server faceplate indicate when

- the 201i server, MPC-8 card, or SCSI drive are in use
- it is safe to remove the server from the Succession CSE 1000 system, or the MPC-8 card from the server
- network activity is occurring

The HEX display on the 201i server faceplate displays messages that appear during startup or normal 201i server operation.

For more information, see “LED and HEX displays” in Chapter 2 of *Part 5: 201i Server Maintenance and Diagnostics* (NTP 555-7101-119), Standard 1.0, October 2000 in the *CallPilot 201i Installation and Configuration* binder.

## Startup sequence and diagnostic codes

To help you determine if the 201i server started successfully (or if it failed), watch the startup sequence and the diagnostic codes that appear. The entire sequence occurs when you perform one of the following tasks:

- Lock the 201i server into position. The 201i server begins receiving power.
- Restart Windows NT.
- Press the 201i faceplate reset button to perform a hardware restart.

For more information, see “Bootup diagnostics” in Chapter 2 of *Part 5: 201i Server Maintenance and Diagnostics* (NTP 555-7101-119), Standard 1.0, October 2000 in the *CallPilot 201i Installation and Configuration* binder.

## Log files

The installation event log tracks events associated with any install, reinstall, upgrade, or uninstallation operation. The log also tracks any fatal errors that interrupt these operations.

The Configuration Wizard log file is a record of the information entered through the CallPilot Configuration Wizard.

For more information, see “Viewing installation and configuration log files” in Chapter 2 of *Part 5: 201i Server Maintenance and Diagnostics* (NTP 555-7101-119), Standard 1.0, October 2000 in the *CallPilot 201i Installation and Configuration* binder.

## **Windows NT 4.0 diagnostics and Event Viewer**

The Windows NT 4.0 Diagnostics window allows you to view details concerning the system and network components.

The Event Viewer provides access to three logs (system, security, and application), which you can use to diagnose and debug system problems.

For more information, see “Checking hardware using Windows NT 4.0 diagnostics” in Chapter 2 of *Part 5: 201i Server Maintenance and Diagnostics* (NTP 555-7101-119), Standard 1.0, October 2000 in the *CallPilot 201i Installation and Configuration* binder.

## **TCP/IP diagnostics**

The following diagnostic tools help you verify network connectivity and routing:

- ipconfig
- ping
- tracert
- arp
- nbtstat
- netstat

For more information, see “Invoking and interpreting TCP/IP diagnostics” in Chapter 2 of *Part 5: 201i Server Maintenance and Diagnostics* (NTP 555-7101-119), Standard 1.0, October 2000 in the *CallPilot 201i Installation and Configuration* binder.

## **Event Browser, Alarm Monitor, and Maintenance window in the CallPilot server software**

An event is

- any change in system configuration or operational state
- any action taken by the system that requires user notification

An alarm is an event that notifies you of a potential or real problem.

For more information, see the following documents:

- Chapter 3, “Using the administrative PC to diagnose the server,” in *Part 5: 201i Server Maintenance and Diagnostics* (NTP 555-7101-119), Standard 1.0, October 2000 in the *CallPilot 201i Installation and Configuration* binder
- Part 2 of *CallPilot Monitoring and Security for the Administrator* (NTP 555-7101-500), Standard 1.0, April 2000

## **CallPilot system utilities**

For more information about the following utilities, see Chapter 4, “Using CallPilot system utilities,” in *Part 5: 201i Server Maintenance and Diagnostics* (NTP 555-7101-119), Standard 1.0, October 2000 in the *CallPilot 201i Installation and Configuration* binder.

### **Diagnostics**

The Diagnostics utility allows you to enable and disable CallPilot startup diagnostics that are run when the system starts. This tool saves time during system maintenance operations where server restarts or restarts of Call Processing services are required.

### **PEP Maintenance**

The PEP Maintenance utility displays a list of all installed PEPs on the server and enables you to uninstall PEPs.

### **Services Monitor**

The Services Monitor can help you determine whether the CallPilot server is fully operational. It displays true states of the CallPilot services according to Windows NT definition, including the states that are not available through the control panel.

### **Session Trace**

The Session Trace tool provides detailed information about the activity in a user’s mailbox and the state of the message waiting indicator (MWI).

### **System Information**

The System Information tool displays particulars about the CallPilot system, such as names, keycodes, serial numbers, IP addresses, and system numbers.

### **System Monitor**

The System Monitor provides a single point of view of CallPilot call processing status at any time. The status provided reflects the true internal status of the Call Processing subsystem, including all related call processing components. This eliminates the need to use multiple tools to get the same information.

# Using the *CallPilot Monitoring and Security for the Administrator* guide

## Introduction

The *CallPilot Monitoring and Security for the Administrator* guide (NTP 555-7101-500) provides valuable information for monitoring system performance.

Part 2 of *Monitoring and Security for the Administrator* (NTP 555-7101-500), Standard 1.0, April 2000 describes how to

- view and filter server and client PC events
- monitor the CallPilot server
- manage CallPilot channels
- troubleshoot CallPilot call service and system operation problems

## Viewing and filtering events

If you want to reduce the number of events shown in the Event Browser at one time, you can screen the event log to view a specific number of the most recently filtered events. By default, the Event Browser displays the latest 100 critical events.

You can set the filter to display

- a specific number of latest events, or all events that are retrieved from the server
- events of a certain severity (critical, major, minor, information)
- a specific event code range, or all event codes
- a specific type of alarm (alarm set, alarm cleared, or message)
- events that occurred during a specific date and time interval

**Note:** The filter combines the filter settings from each category.

## Monitoring the CallPilot server

Monitoring activities include

- viewing the Succession CSE 1000 system configuration and server settings  
You may need this information when you communicate with product support personnel.

- monitoring disk space

The performance of your CallPilot system depends, to some degree, on the amount of available disk space. Without enough disk space, the server cannot perform adequately. In some circumstances, the server can stop functioning.

Nortel Networks systems are engineered to provide adequate space to meet your data storage and system operation requirements. You must, however, monitor disk space occasionally to ensure space does not become too limited.

- monitoring the database

The database stores user information, system configuration information, and various statistics that are collected by the system. You cannot monitor the database disk space directly. However, an alarm is raised if the database reaches its expected limit.

Possible reasons for database problems include

- operational measurement statistics are too detailed or stored for too long
- the system is under-engineered

If your estimated usage patterns change or if your number of users grow, you may need to purchase additional disk space. Contact your Nortel Networks distributor for details.

- monitoring server performance

The Server Performance Monitor (SPM) lets you keep track of the day-to-day hardware and software operations of your system. The window includes information about processor usage, available memory, and available storage space. You may want to view server performance daily to ensure that the server is working properly. You may also want to view data if your server's performance has deteriorated.

## Managing CallPilot channels

Call channels carry digital voice, fax, and speech recognition data from the Succession CSE 1000 system to the server. When the data reaches the server, the multimedia channels process the data according to the type of transmission.

### Monitoring call channels

You can monitor individual call channels through the Channel Monitor window and multimedia channels or MPC-8 cards through the Multimedia Monitor window to

- ensure that the distribution of calls is as balanced as possible
- view the state of all channels

As required, you can also remove the call and multimedia channels from service to perform diagnostics, upgrades, or installations. When the maintenance or diagnostics are complete, you restart the call and multimedia channels and put them back into service.

## Troubleshooting call service problems

Call service problems may occur in the Remote Notification, Delivery to Telephone (DTT), and Delivery to Fax (DTF) services, if they have been put into service.

The types of problems that can occur when using Outcalling services include

- being unable to use the Outcalling service because channels are not available  
This can occur if the channel allocation is not spread evenly, or channels are out of service or faulty.

- experiencing a high rate of failures because of incorrect configuration, or because the retry limits are exceeded

DTT or DTF failures can occur because of the following conditions:

- busy
- no answer
- answered, but no DTMF confirmation was provided, or the call was terminated before delivery could take place

Remote Notification failures can occur because

- the users' Remote Notification target DNs are restricted
- user pager setups may not be correctly configured
- retry limits are exceeded

You can monitor these types of problems by using the Event Browser or Reporter.

## Troubleshooting system operation problems

The following types of system operation problems can occur:

- Alarms occur despite no apparent system problem.  
Determine if someone has recently run diagnostics on the system. A diagnostic test can generate an alarm as part of its test even if the system is fine.

- Calls are not answered.

Possible causes include the following:

- CallPilot is not configured correctly.
- The Service DN table is not configured correctly.
- Call flow from the Succession CSE 1000 system is impaired due to incorrect configuration on the Succession CSE 1000 system.

- Calls are answered, but no prompts are heard.

Possible causes include the following:

- There is a possible error in the application that supports the requested service.
- There is a problem with the call channel or call channel link.

- The system is not working after an IP address change.  
If the IP address of a CallPilot server is changed while the system is up and running, the system will not work until you restart the Succession CSE 1000 system.
- The monitor shows a blue screen.  
If the monitor suddenly shows a blue screen with white text on it, a system error has occurred. Write down all the events that took place prior to the blue screen's appearance. Then write down any text that appears on the blue screen and contact customer support for assistance.



# Using the *CallPilot Troubleshooting Reference*

## Introduction

The *CallPilot Troubleshooting Reference* describes symptoms that can appear on all CallPilot server platforms, and describes ways to resolve them. This document is continually being updated by Nortel Networks and is made available on the Nortel Networks Partner Information Center (PIC) at <http://my.nortelnetworks.com>.

For instructions on obtaining the latest *CallPilot Troubleshooting Reference*, see “Troubleshooting” on page 14.

## Types of problems that are covered

Use the *CallPilot Troubleshooting Reference* to resolve the following types of problems:

- server start cycle failures
- peripheral device problems
- monitor display problems
- server to network connection problems
- remote access connection problems
- CallPilot application problems



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# **CallPilot**

## **Installation and Configuration for Succession Communication Server for Enterprise 1000**

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